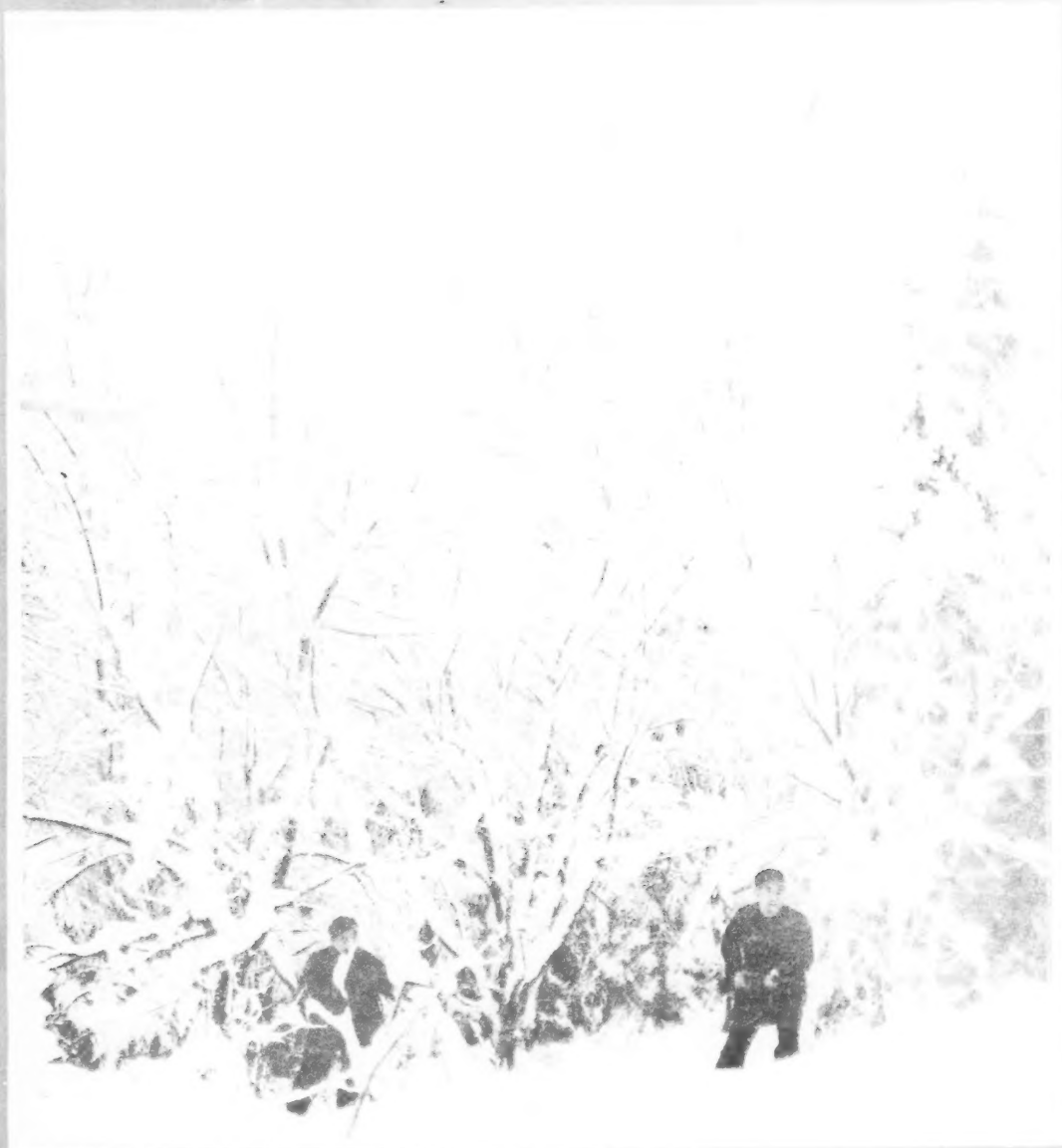


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The

# AMERICAN RIFLEMAN

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The N. R. A. Pistol Team Championship was won by the St. Louis Police

Department Revolver Team with the record score of 1,334, 31 points better than the old record. Oliver Yanick, member of the St. Louis Police Pistol Team, placed first or second in a number of matches.

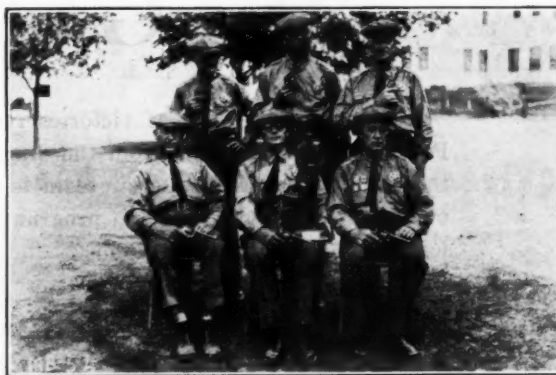
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Thaner Hill, winner National Individual Pistol Championship and other events. Member of the St. Louis Police Department Pistol Team



Portland (Oreg.) Police Department Revolver Team, winners of International Police Pistol Team Championship and Sobel Trophy

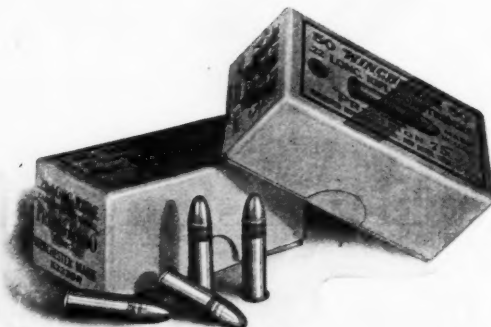
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### Ray Bracken and Dr. Bastey Repeat their Triumphs with Colts

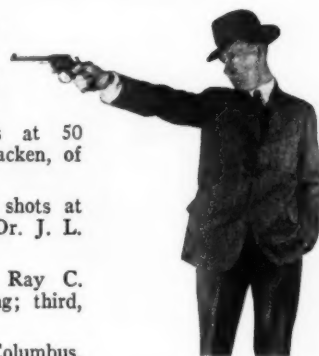
MATCH "B"—PISTOL CHAMPIONSHIP—50 shots at 50 yards, Standard American Target. Won by Ray C. Bracken, of Columbus, Ohio; score 474 x 500.

MATCH "C"—RAPID FIRE, MILITARY ARM—50 shots at 50 yards, strings of 5 shots in 15 seconds. Won by Dr. J. L. Bastey, of Boston, Mass.; score 422 x 500.

MATCH "F"—POCKET REVOLVERS—Won by Ray C. Bracken, of Columbus, Ohio; second, Corp. J. E. Young; third, Dr. J. L. Bastey, Boston, Mass.; score 214 x 250.

GRAND AGGREGATE—Won by Ray C. Bracken, of Columbus, Ohio, with a total of 1,224.

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Boston, Mass.

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MATCH "E"—REVOLVER TEAM CHAMPIONSHIP and Winans Trophy, won by the Portland (Oreg.) Police Team, consisting of Sgt. J. H. Young, C. F. Shaylor, C. B. Maxwell, and G. A. Marshall, with a score of 780 x 1,000. All shot Colt Official Police Revolvers.

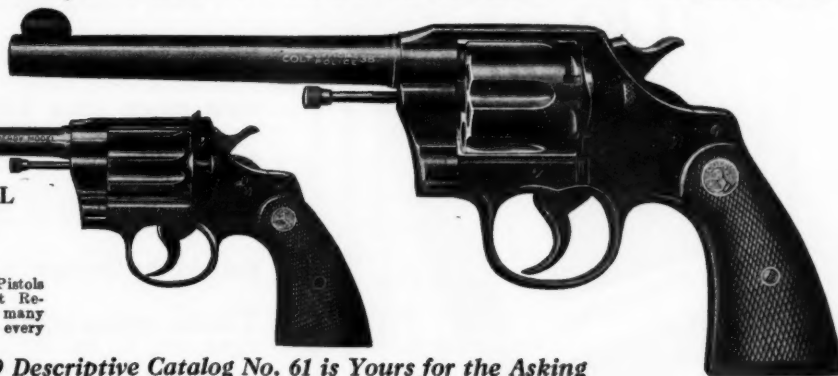
MATCH "T"—INTERMEDIATE REVOLVER MATCH: Won by H. S. Menkel; second, A. A. Matzinger; third, M. Baker; with scores, respectively, of 441 x 500, 438 x 500, and 435 x 500, all with Colt Revolvers.

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# *The* AMERICAN RIFLEMAN

Vol. LXXVII

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Published Monthly by  
**THE NATIONAL RIFLE ASSOCIATION OF AMERICA**  
INCORPORATED 1871  
 Barr Building, Washington, D. C.

L. J. HATHAWAY, *Editor*

Obtainable by subscription, \$3.00 per year in U. S. A.; Canadian and South American, \$3.50; Foreign, \$4.25.

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Entered as second-class matter, April 1, 1908, at the Post Office at Wash., D. C., under Act of Congress of March 3, 1879.

*In case of change of address please give thirty days' advance notice.*

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# EDITORIAL

## MERRY CHRISTMAS—AND GUN LAWS

THE month of December means a great deal more to the shooting clan than the closing of the old year's books and the giving and receipt of gifts at Christmas time. December is the beginning of the national legislative sessions and sees the foregathering of a few State legislatures presaging the general assembling of lawmaking bodies all over the country. December *may* be the month for the closing of books in business houses, but it is the month for the opening of lawmaking books. It may be the month for the friendly exchange of gifts at Christmas time, but it is the month in which the shooter is likely to have handed to him a few gifts that he is not at all happy to receive, in the shape of restrictory firearms legislation.

In his article, "Pennsylvania Returns to Buck Hunting," in the November issue of *THE AMERICAN RIFLEMAN*, Mr. Gilbert Irwin mentions one type of anti-gun law which he thinks would be all right. The National Rifle Association does not agree with Mr. Irwin that this particular kind of legislation is good legislation, but in its capacity as the mouthpiece for the shooters of America, *THE AMERICAN RIFLEMAN* did not wish to delete from the article Mr. Irwin's personal opinions. It will probably be well at this time to again set forth the guiding policies of the National Rifle Association in regard to National and State legislation:

1. We heartily endorse legislation requiring dealers to keep adequate records of firearms sales, so that police in recovering a weapon may trace it to its original purchaser.

2. We have no objection to legislation requiring a man to obtain a permit to carry a gun concealed, as long as proper provision is made in the law to enable any honest citizen who is a member of a properly organized target-shooting club to carry his gun to and from the target range. We do not believe that the necessity of a permit to carry concealed weapons will have any appreciable effect on the use of guns by criminals; but if the police believe that such a law will help them, we have no objection to its passage.

3. We are unalterably opposed to any law requiring a man to obtain a permit in order to *purchase* a gun or to keep it in his home or place of business, and we are opposed to regulations requiring "mugging" and finger-printing for honest citizens, the same as is done in the case of criminals.

4. We are opposed to legislation providing for the granting of gun permits only to those individuals who take out hunting licenses. There are thousands of honest citizens in this country who like to shoot at targets but who do not have the time nor the inclination to go on hunting trips. We do not believe that it is just to require such men to go to the expense of obtaining hunting licenses in order to shoot at targets. We fail to see that the cause of game conservation is advanced by any such procedure.

5. We favor the continuance of the National Rifle Matches and their support through Congressional appropriation.

6. We favor the continuance of support by the War Department for civilian rifle clubs and the granting of such increased appropriations from time to time as may be necessary in order to continue this assistance to the steadily increasing number of such clubs.

7. We favor the passage by State legislatures of bills similar to that passed in Kansas in 1929, authorizing direct State financial assistance to the civilian riflemen.

8. We favor municipal ordinances granting additional pay to policemen for qualification with small arms, the installation and equipment of police ranges, and the furnishing of the necessary arms and ammunition of standard type to police officers.

9. We favor municipal ordinances permitting the installation of safety-type rifle ranges in municipal parks, the expense to be borne either by the municipality or by the local civilian rifle clubs, or jointly by both.

This program with all of its ramifications is a tremendously big order for any organization to undertake to fill. Its fulfillment means not only a powerful defense against attacks of pacifists, communists, and misguided criminal reformers, but a strong counter-attack aimed at the winning of the objectives set forth. One or two of the objectives have already been attained. Limited advances have been made in the direction of other points. Our defense has so far been gratifyingly successful. It is essential, however, that there be no falling asleep at the switch on the part of any member of the National Rifle Association or friend of the shooting game in this country if we are to continue our successful fight. Immediate reports should be made to National Headquarters of any proposed local or State laws, and sportsmen of the nation should go about establishing closer contact with one another and with their National Headquarters in order to be prepared to throw concerted strength into the various fights as they develop.

After all, December, with its frequent social gatherings and its home-comings at Christmas time, is not such a bad month for the consolidation of public sentiment behind the program of the National Rifle Association. Members of State and National legislatures are generally at home for the Christmas holidays. When they give you a vote-getting slap on the back and wish you a Merry Christmas and a Happy New Year, ask them if they mean it and what they are going to do to protect you when the legislature convenes.

With a united front and all shoulders to the wheel, we may wish one another a Merry Christmas and a Happy New Year with a good chance of seeing both wishes fulfilled, at least in so far as our "shootin' irons" are concerned.



# The AMERICAN RIFLEMAN

Vol. LXXVII

DECEMBER, 1929

No. 12

## The Shots That Fail To Connect

By KENNETH FULLER LEE

IF THERE lives a hunter who will state that his shots, even those most carefully aimed, *always* land, let him now stand forth and be elected immediately to the National Ananias Association. It just naturally isn't done! Mastering the art of placing all the shots in a black bull's-eye is one thing, and slamming your bullets into a running bear or buck is something else again. This was brought strikingly to my attention the other day.

The Chief and I had just topped a little hardwood ridge, far back in the Allegash region of northern Maine. A big buck stepped out from behind a blow-down, head cocked sidewise, listening. It was possibly a hundred yards distant, but small trees and brush intervened when I found the buck's shoulder through the aperture of my 6.5 Mannlicher. This past year I have been experimenting with two loads. One of them is the Western hollow-point 140-grain pellet load, and the other a soft-nosed Western 160-grain bullet, slightly slower, but with a lot of punch. My first shot started the buck off on the gallop, flag up and apparently unhurt. I stepped hastily ahead, and fired four very carefully aimed running shots, catching the deer in the peepsight and holding low, setting the set trigger for each shot. At the last shot, with the deer just visible through the hardwood, I heard the Chief shout, "He's down!"

We paced the distance, which proved to be nearly 170 yards, a very long shot under woods conditions. The buck was hit only once, the 160-grain bullet landing back of the shoulder on the left side and penetrating a rib without opening up much, emerging ahead of the right shoulder and smashing up the heart and lungs in fine shape.

There are some rifles that have no business at all in the Big Woods, and I am going to risk treading on somebody's pet corn by mentioning a few of them. The .22 Hi-Power is undoubtedly the worst of the bunch, for its light, fast pellet will deflect and blow up on the smallest of dry twigs. The .250-3,000, with the regular 87-grain bullet, is somewhat better in this respect, but with the Western 100-grain load, hollow-nosed, it becomes a real deer and bear load (black bear). The .25-20, .32-20, and .25-36 are not suitable for deer in thick cover, although they kill readily when an open, fairly close shot is obtained.

The difference between dry and green twigs in their relative effect on bullets is nothing short of astounding. A twig of the size of a lead pencil, dry, will send even the .30-06 *light* (110- or 150-grain) bullet off its course, and is fatal to accuracy, while a green twig of the same size, or larger, will hardly interfere with a bullet's flight materially.

It is a peculiar fact that round-pointed bullets such as the old Krag 220-grain will show better penetration in soft woods than the faster, Spitzer-pointed loads such as the old Service 150-grain. A 3-foot pine will not stop the former—but try to get the sharp-nosed bullet through. It can't be did, except by accident!

Next to bullet deflection the most common cause of lost shots, especially in the case of novice hunters, lies in the taking of too coarse a bead on running shots, and on standing shots in fading or early light. The use of the aperture rear sight will obviate much of this.

If I were to equip a budding deer-hunter on his first trip methinks my first operation would be to sight his rifle to land about a foot lower than the normal sighting point. Everyone of course knows that on downhill shots there is a strong tendency to overshoot, but

the number of running shots lost in the same way has never been sufficiently emphasized. Hold low!

Shooting behind a running deer is not so common these days, with loads speeded up to around 3,000 feet or even more. Back when gran'paw used to touch off the old muzzle-loader, an' then set 'round waiting for the flint to ignite the powder in the pan, and the powder in the pan to flash into the chamber, and the powder in the chamber to ignite and start pushin' an ounce of lead out of a 4-foot bar'l—misses were common enough from failure to lead a racing buck. But if your sights are on, these days, and you don't yank 'em off when you squeeze the trigger, you've little to worry about.

'Ware the set trigger! I had the devil's own session getting used to the one on my new little pet Mannlicher, and lost at least a couple of good bucks by having the durn thing let go halfway to my shoulder on running shots. A set trigger is a sweet rig if you have plenty of time, but when in a hurry one can easily set off a bundle of premature fireworks, verbal as well as ballistical.

Just before dark and early in the morning, unless using a scope sight, it is a safe rule to hold from 6 inches to a foot lower than you think is necessary on either running or standing shots. It's almost a physical impossibility to get the front bead *clear down* into the rear notch of an open sight, and if you don't do it, good-bye buck! Hold low—lower, and then let him have it. But look out for twigs if you are using a bullet of less than 170 grains' weight.

The old black-powder loads of the .44-40, .38-55, and .45-70 class were largely immune to twig deflection, and are still heap good medicine in brushy cover in spite of their present-day lack of popularity. They were not so easy to overshoot with, owing to their slower speed, and there are lots of "genuine old-timers" who still lug 'em, and do business right along that would make the coming generation sit up and take notice.

If a census of deer-hunters could be taken today in Maine, I venture to assert that more .30-30's would be found than all other calibers combined. This is because shells can be obtained at any country grocery store, and because the "30," well-pointed, will account for any Maine game. With the newer loads it is quite a gun, but its appeal is not felt by the genuine gun crank, as a rule. These tote the bolt-action rifles, more and more of them each year, and the splendid hunting arms now being produced by all the big arms manufacturers will foster a class of shooters who will make it exceedingly hard sleddin' for the deer, bear, and moose of the country in the next few years.

But no matter how much improvement is made in rifles, sights, and loads, the prime factor in successful game-shooting will remain constant. You've got to *hold* to hit 'em! A plunging buck at 70 to 100 yards *looks* like a mighty big target, but did you ever stop to consider what a lot of room there is *around* that deer? Honest, it's a fright! And until some scientific cuss devises a bullet that has a natural affinity for deer meat, working on a highly specialized ultra-magnetic principle and guaranteed to dodge twigs and other like obstacles—well, you can bet we are going to keep right on missing plenty of seemingly excellent shots. Oddly enough, if such an invention is ever perfected I hope the bird that originates it will stop the first of his own series of infallible bullets, and that the secret dies with him. The deer are being weeded out fast enough anyhow.

# Equipment for African Hunting

By COUNT V. DA GAMA

(Continued from November issue)

## GUNS AND AMMUNITION—TELESCOPIC SIGHTS

**W**E WILL not dwell here on the respective advantages of heavy- and light-bore rifles. This matter has already been discussed by me at length in a previous issue of the RIFLEMAN. I will limit myself here to giving general information, permitting you to select in the heavy or light line of rifles the ones most suited for Africa.

A heavy rifle is made satisfactorily only in England, by the specialized gunmakers, of which the most renowned are Holland & Holland, Rigby, Westley Richards, and Jeffery. They are made in one or two qualities, but the best one only should be considered. They will cost about \$700 apiece. Any express made by the above-named manufacturers, and perhaps a few others, will give complete satisfaction. They must by all means have ejectors fitted.

You will get accustomed quite easily to the recoil, although at the beginning you will think it quite unbearable. Try them carefully at the range to see if they fit you; in other words, to see if when you throw them quickly to the shoulder the line of sight is correct without requiring any movement from your neck or right hand. Try them without your coat, collar, or vest, and without suspenders; in other words, in as nearly as possible the way you will be dressed from the waist up while on the field. Take a few spare sight covers, and also some small files to correct the sights if necessary, as under the tropics the bullets are apt to go high, and across in the case of double rifles.

As soon as you reach Africa, try your

rifles in a part of the country where there is no game. Use a chair or table or any other arrangement to support the rifle while readjusting the sights, and once you are in camp never fire unless it is absolutely necessary; otherwise after a few shots all game will move away. If you are not a particularly good shot and wish to increase your steadiness, especially when firing at long range in the prairies, you will find that many white men use a sort of fork upon which they rest the muzzle of their rifle. This is absolutely unsatisfactory, as in these conditions the rifle, instead of resting on two points—viz., your left hand and your shoulder—rests on three, which if anything makes it worse than firing without a support.

There is a much better way than this which I have tried while firing at 300 and 400 yards, and which increases your accuracy by 100 per cent. Have the natives give you a long, straight stick made of the same wood that they make their spears from, measuring about 6 feet high and  $\frac{1}{2}$  inch thick. Whenever you want to use it to steady your gun, take the pole in your left hand, grasping it with your four fingers. Rest your rifle between the pole and your thumb. At the beginning you will experience certain difficulties due to the fact that you are not holding the pole perfectly vertical, but after a few trials you will see that this device works out quite satisfactorily and can be of great help. Besides, a stick always comes in handy either to help you walk, to deal

with a snake, or even with a native. Needless to say, this stick can not be used in the forest.

The automatic safety must be corrected and made non-automatic, so that it does not snap on when opening the gun. Many hunters have been killed through the additional fraction of a second necessary to pull back the automatic safety after reloading.

The most suitable rifles of this kind seem to me to be the 475, from Jeffery's, the 465 from Holland's, and the 470 from Rigby's.

The single-barreled repeating rifles generally used in Africa are of the Mauser or Mannlicher type. Some other sportsmen prefer Winchesters, Savages, or Springfields. They all come in a variety of bores, where the sportsman will undoubtedly find exactly what he believes best suited to his personal needs.

The Mannlicher and Mauser actions are fitted by the above-named British manufacturers to guns made in their works, which have a much better balance than the standard German rifles, and a barrel lasting three or four times as long as the steel used by the original manufacturers. These British magazine rifles are rather cheap, costing about \$175.

The Mannlicher rifles are generally fitted with double triggers, and so are a few guns of the Mauser type. I disapprove entirely of the hair trigger. If you get accustomed to it you can not shoot satisfactorily without it, and at the same time in case of a pinch your first reaction would be to pull



Strange that so small a gun can drop so large a beast in one shot

the back trigger and this would mean a loss of precious time.

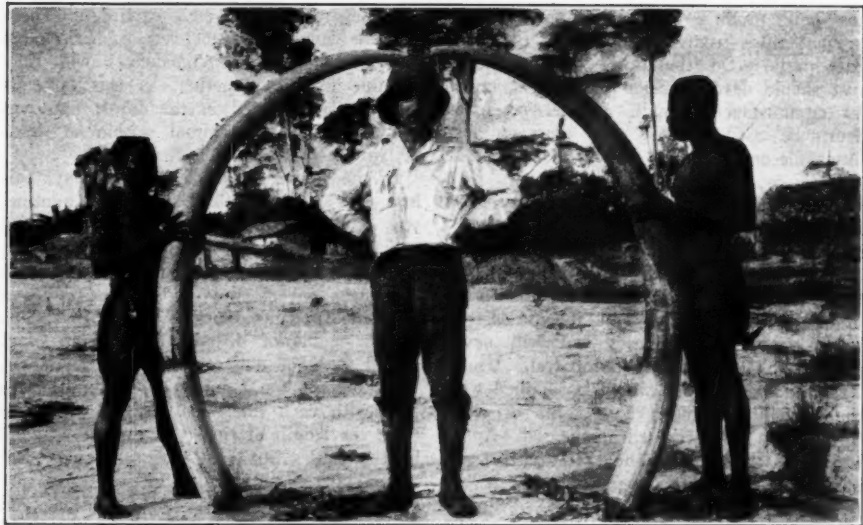
The matter of single or double pull is optional, although personally I like a short double pull.

I do not like the Mannlicher action because, although its revolving magazine is more convenient than the Mauser's, the bolt handle is too far from the stock pad, and makes it impossible to operate the action unless the gun is taken off the shoulder. The Mauser bolt is much handier, if the magazine is perhaps not as satisfactory. I dislike entirely the Winchester or Savage lever actions, which are apt to jam; and I think the line of Springfield cartridges and bores is not as well adapted to African big game as the cartridges that can be used with the British-made magazine rifles with Mauser action.

Some English and other manufacturers, in order to give a more personal touch to their rifles, give an additional bend to the bolt handle, or even file its end. They claim that a rifle so arranged will not catch the bush, etc. It may be so, but it is also a fact that operating the bolt is then not as easy as if it is left at the correct angle given it by the Mauser works. The big advantage of the magazine rifles is the rapidity with which several shots can be fired in succession, and anything that might impede this rapidity does away with precisely the main advantage of these rifles.

The stock should be as short as possible, although long enough to prevent you from being hit on the nose by the bolt, or on the eye by the telescope. An experienced London gunmaker will determine this. You must also train yourself to reload without moving the rifle down from your shoulder. This calls for a certain amount of practice, which you should get before going on the field. The left hand should not be placed too far away on the stock, so that after the shot is fired you can with that hand advance the rifle about 1 or 2 inches. At the same time your right hand will operate the bolt, and after a certain amount of drill you will find that you can fire with almost the same rapidity as when using an automatic pistol. This advantage naturally disappears if the magazine rifle is very heavy (big bores) or if the case is too long, in which event the lengthwise movement of the bolt is too great.

The advantage of the magazine rifle over the express is the possibility of firing quite rapidly a few shots in succession. This advantage ceases with large cartridges because then the recoil does not permit you to operate the bolt almost at the same instant that the bullet is fired. I have tried in London, since my return from Africa, several high-powered magazine rifles, like the 375 from Holland's, and I find that the recoil, throwing my shoulder back, delays reloading; as does also the great length of the brass case, which calls for a longer movement of the bolt. The 318 from Westley Richards seems very satisfactory, from the point of view both of absence of recoil and shortness of movement of the



*Some real ivory*

bolt to expel the fired case. The 350 from Rigby would be about the heaviest magazine I would care to use, while the 275 from Rigby is as good a light rifle as can be made. The 333 from Jeffery's is excellent as far as ballistics go, but there is too much recoil and the case is too long to permit taking full advantage of the repeating action.

Extra heavy magazines, such as the 416 from Rigby, are recommended only in the case of a sportsman wanting at all costs a very large bullet, and balking at the price of an express. I am afraid that once on the field not much satisfaction will be derived from such a heavy and clumsy weapon.

It is a good plan to take along, in addition to one of these English rifles, an original Mauser rifle firing the same cartridge. Being much cheaper this second gun can be used to finish the animals, and can eventually be put in the hands of a gun-bearer.

A magazine rifle is not complete without a detachable telescope. In this line no telescope, of which I tried many, is as good as the Zeiss Zielvier. The telescopic sight has manifold advantages, among which we can say that it lengthens the shooting hours of the day by at least one hour. Long before you will be able to aim in the dew of the early morning with ordinary sights, you will be able to shoot perfectly with a Zeiss telescope. This happened to me the first time I went buffalo hunting in the prairies with a magazine rifle with telescope. I was carrying this rifle in a leather case, while my express from Holland's was ready for action. A native pointed out in the morning mist a buffalo over 150 yards away. I could hardly see the horns, but nevertheless put the Holland to the shoulder. Firing was impossible as I could not see anything through the sights of my express. I took the Mauser from the cover, and through the telescope could see the buffalo perfectly, and a single bullet going through the heart disposed of the beast.

At very long distance, in open prairies,

I have shot, with the aid of the telescope, as far as 450 yards, which under the then existing conditions of visibility I could not have done with ordinary sights. At night also (with the moon out, of course) I have shot buffalos and elephants at distances which otherwise I would have considered entirely out of range.

There are several different sights or reticules for the telescopes. No matter which one you choose, be sure it is of the cross or semicross type. At night, when aiming, for instance, at an elephant's head, you will not be able to see the point of intersection of the two lines, but you will find that you can see fairly well the beginning of these cross lines, which will permit you to make out exactly the place where your bullet will go.

The fitting of the telescope is a very delicate operation, which should never be attempted on an already made rifle. In other words, the telescope must be ordered and placed when the gun is being manufactured. It must allow sidewise and lengthwise adjustment; also, shooting with the ordinary sights from underneath the telescope, in case of a charge. The original Mauser fitting is most satisfactory, as is also the Westley Richards mounting.

Avoid telescopes magnifying more than four times, as then the trembling of your rifle while aiming will produce a movement of the point of aim, transforming the shooting of a standing animal to something like shooting at the ball in a fair shooting gallery.

In addition to your rifles you will need a good automatic pistol, which you should always keep under your pillow at night, together with the electric torch already described.

It is a very difficult thing to keep rifles in good condition in Africa, owing to the humidity; and you will find that a rifle or a pistol which has not been greased at least every two days develops rust.

After having tried any amount of different greases, I have come to the conclusion that



the only product which will satisfactorily prevent rifles from rusting is the B. S. A. Safetipaste. On the other hand, in case rust should develop inside the barrels, under no circumstances should a steel or brass brush be used, as this acts more or less like a file on the inside grooves of the barrel.

Here is the method I employed with complete success in order to keep my rifles in condition: As soon as possible after shooting, wash thoroughly the barrels with Young's 303. Then dry and apply Safetipaste. There is a little trick in coating the inside of a barrel perfectly, and if you use a rather large cleaning rod, you will never succeed in fully coating the barrel. Use a steel rod like the one which is supplied with the Mannlicher rifles. Put a bit of cloth through the hole provided on the rod. Apply freely on this cloth the Safetipaste, and insert the rod in the barrel, holding it between the palms of your hands. Press it slowly into the barrel while with your palms give the rod a very quick rotary motion. Take the rod out of the barrel from the opposite end to which it entered, and if the operation is properly done, when looking at the barrel toward the light you will see that the coating is perfectly evenly distributed.

On the various moving parts of the gun use either Texaco's special sewing-machine oil, or Eley's jelly.

After a certain number of shots metal-fouling will cover the inside end of the barrels. The number of shots can not be determined in advance as it depends upon the bore of the rifle and the care you have taken of it, but fifty to one hundred shots is the minimum. Pour boiling water through the barrels, using a little tin funnel that you should buy before you go to Africa. As soon as the barrels are cold enough to be handled easily, take the cleaning rod and use a heavier bit of cloth so as to have it rub against the grooves, and apply on it a liberal quantity of B. S. A. Cunirid. Rub the inside of the barrel lengthwise with this cloth, and you will find that after a few minutes the barrel is absolutely free from the fouling.

It is necessary to coat the barrels every night with Safetipaste. It is also necessary to wipe this grease off very carefully before shooting; otherwise your first bullet will go too high, and in case of double-barreled rifles, slightly across. Never let the natives attempt to clean your rifles, because there is not one chance that they will do it satisfactorily. By keeping your rifles in good condition not only will they render you better and longer service, but you will always be able to dispose of them at a much higher figure.

Should rust develop inside or outside the barrels anyway, the best treatment is to use Winchester's Rust Remover. But if this is applied on a blued surface, besides the rust it will take off the coat of blue.

Never think of being able to use in Africa any of the cartridge belts which they show you in London. Have a piece of cloth sewn on your trousers slightly under the belt, stitched in such a fashion as to

carry separately about eight cartridges. There must be enough space between each cartridge so that under no circumstances will they be able to click together, as this noise is very easily detected in the forest and will put in flight any animal within at least 50 yards.

In the knapsack, which should always follow you at a short distance while hunting, you should always have at least 10 or 20 additional cartridges. Due to my overlooking this I was stopped for three hours one night on my way back to camp by a herd of elephants blocking the path, which I was unable to dislodge, due to the fact that I had not one cartridge left.

As regards the amount of ammunition to take with each rifle, this depends of course upon the length of time you expect to spend in the bush; but remember that you will never have any difficulty in selling to any white man a rifle in good condition, and that a few hundred additional cartridges will greatly facilitate the sale.

It is difficult to state what proportion of soft-nose and "solid" bullets should be used. For an elephant, a rhino, a hippo, only solid bullets can be used, irrespective of the bore. On buffalos, lions, gorillas, antelope, many hunters prefer soft-nose bullets, although personally I have found that a solid bullet, having much more penetration than a soft-nose bullet, will bring buffalo down much quicker. In other words, that the longer wound they produce is much more effective than the shorter but wider one of the soft-nose bullet. Although for lions, for instance, I have had excellent results with soft-nose bullets, fired with my express. On the second part of my trip when I used only light rifles, solid bullets proved absolutely satisfactory.

As far as shotguns go, it may be amusing to shoot occasionally from a canoe ducks, aigrets, or similar game, but a shotgun calls for heavy ammunition. In the forest you will find that as soon as the cartridge shells are out of their sealed packages they expand because of the humidity, and have to be kept in the sun in order to regain their normal size. That is why any repeating gun like the Winchester or the Browning is absolutely useless. Only a double-barreled 12-bore shotgun can be used.

In camp, though, it is totally inadvisable to fire a shotgun. The report is very heavy and can be heard for miles, thus putting in flight more important game. If you are anything like a good shot you will find that a very light rifle, shooting, for instance, a .22 long Winchester cartridge, will permit you to shoot small monkeys, guinea fowl, ducks, etc.

#### TRAVELING BY PIROGUES AND CARAVANS

In Africa you will get paddlers or carriers through either the chiefs or the government officials if there are any. In all cases you must start by putting their names down in your notebook, and once this is done and they agree to take you to a certain place they are bound to you by a contract which empowers you to make them carry it through.

If you go through a populated area you will find that if at the start you had 80 carriers, at the end of the journey you will have about 120, all of them claiming they started from the beginning, and expecting pay. These are just joy-riders who have gotten a regular porter to let them carry a lamp or a chair or some other light burden in order to keep up appearances, and besides being unnecessary they will extract from you full payment for a day's work which they have not performed. Therefore you should make it clear that only the men whose names are written in your book will be paid.

In French territory paddlers or carriers are paid 2 francs a day while on the march, nothing at all while resting, or on the return voyage if they travel unloaded. Never pay them or make any advances before they have fulfilled their obligations; otherwise they may run away and leave you alone with your loads. Deal with them as much as possible through their "Capita," and if any punishment has to be given these men have it handled through the "Capita," who in most cases you will find will side with you. These carriers or paddlers will provide their own food, and sleep naturally under a tree. Consequently you do not have to provide them with tents as you have to do in the more fashionable colonies of British East Africa.

Peace will most probably reign among your caravan until you have shot some game. Then the trouble will start, because raw meat is considered by the natives as a priceless article. You will probably abandon the meat to them, and this will be followed by an endless series of fights, many of them with knives drawn, which you will have to settle as best you can. In a certain part of my journey I had so much trouble in reference to meat that I did not shoot a few buffalos just on that account, and I ended by throwing into the river about 600 or 700 pounds of meat which had not been eaten and which was the cause of an upheaval in my camp. The day following the killing of a large animal most of your men will be sick and come to you for medicine. This sickness is simply indigestion caused by raw or half-cooked meat. Give them nothing; because after having consulted you they will go to their witch doctor, and should by any chance one of the men be really sick thereafter the witch doctor, if insufficiently tipped by you previously, will put the blame on you, and all the men may desert you outright.

At one time my wife, disapproving of this method, used to give the natives our very best aspirin, salts, etc. This was during a few days while I was away from the main camp on the tracks of herds of elephants. When I came back I found every morning 10 to 20 men lying outside the tent with agonized expressions on their faces, all complaining of some disease, and all wanting some medicine. I noticed that as soon as they had received their medicine they would immediately regain their vitality and lose their mournful expressions, and found out

(Continued on page 35)



# Bringing the Centers of Impact Together

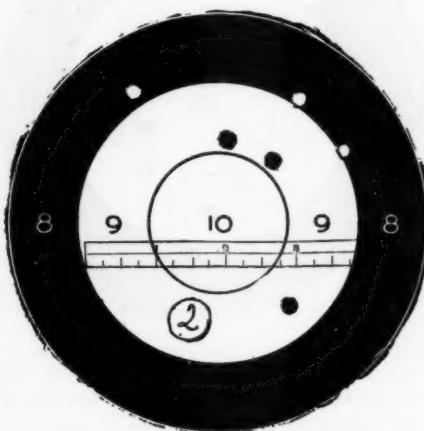
By CHARLES ASKINS

I REMEMBER the time when I shot a .25-20 black-powder rifle. It was mounted with a Lyman peep sight, I and knew exactly where to set that sight for 50, 75, 100, 125, and 150 yards. At that, I didn't do any too good hitting at distances beyond 60 yards. Put up a target at the different distances mentioned, and I'd drop right into the bull; but put me to guessing the distance beyond point-blank, and it would be plenty of guessing and not much hitting.

The high-power rifles helped a great deal with that problem, but brought up another—a variation in ammunition. One of the best rifles that I ever had to strike vermin with—hawks, crows, as well as coyotes and rabbits—was a Winchester Model 94, in which I shot just one cartridge—a Winchester cartridge with 117-grain bullet. Now I depended upon knowing my trajectory, and in place of setting sights for every variation in distance, I set them for 200 yards, and learned exactly where the rifle would shoot up to that distance, not shooting much beyond it. Later I got hold of different makes of cartridges—Western, Remington, Peters, United States—and every different make changed the center of impact a little. Not only that, but new bullets were invented, and driven at varied velocities; 117-grain, 101-grain, 87-grain, and no two of them shot together. The rifle never was so reliable after that.

Of course the moral is, shoot just one make of cartridge, of which all are good, and just one kind of cartridge of that particular make, be it 117-grain, 101-grain, or 87-grain. While a man can learn his sight-setting for all these cartridges, very few do, but instead have to sight in again every time the ammunition is changed. Equally, of course, this sight-setting is an entertaining business, if the marksman has a range of his own and likes to shoot. However, advise a man, say with a .30-06 rifle, to carry with him on a big-game-shooting trip cartridges of 220-grain for bear, 180-grain for moose and caribou, and 150-grain at 3,000 feet for sheep and goats, and I'll guarantee he will become a darn poor hitter at distances beyond 150 yards. Hence I am in the habit of advising, myself, that only the 180-grain cartridge be carried, of just one make, and that one learn the sights for that cartridge up to the maximum range. If the range at which you know the sights is 300 yards, then don't be tempted into shooting any farther.

This is good advice, but it is not going to be taken by any of us who have acquired a new rifle and want to see what is in it. Lately I got a new .276 rifle made by John Dubiel, of the Hoffman Arms Co. John sent



up with the rifle a lot of cartridge-loadings, desirous of getting my opinion as to which powder behaved best, and what load of that particular powder. The .276 uses 7-mm. bullets—175-grain, 150-grain, and 139-grain; also, at least at one time, 145-grain and 160-grain, made by the United States Cartridge Co. The bullets I had to use, though, were Western 175- and 139-grain, and Western Tool 150-grain. John's powder charges with the 175-grain bullet were: 44 grains No. 16, 45 grains Hi Vel, 46 grains No. 17½, 47 grains No. 1147, and 49 grains No. 15½. John's cartridges shot pretty close together at 100 yards, and I suspect that he based his powder charges upon the amount that would give like elevations among the different powders at 100 yards.

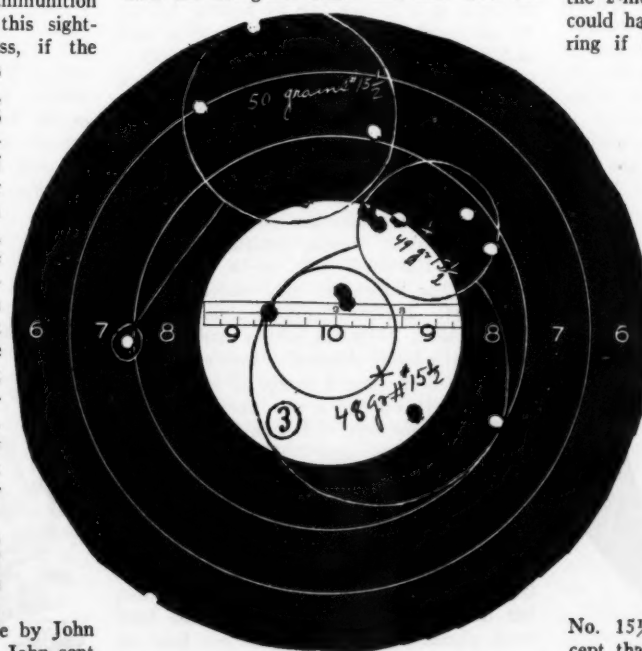
The time came when I wished to load cartridges myself. I wanted ammunition loaded with the 175-grain bullet and also with the

139-grain, and I didn't propose to change sights every time I changed ammunition, at least not for shooting up to 200 yards. For shooting up to 200 yards I sighted in at 100, 4-inch bull, holding at 6 o'clock, which gave me a bullet rise of 2 inches, or a little more at 100 yards. This elevation would carry me down to 200, landing somewhere in a 6-inch bull, bullets having a velocity of 2,800 feet. My problem was to so load as to bring the cartridges I elected to load into approximately the same center at 100 yards. The targets show what was accomplished.

In the targets shown I hope nobody expects to see groups or scores. No attempt was made to secure groups. This rifle and others had been tested out sufficiently before, for accuracy. Roy Riggs had shot a 3.4-inch group of ten shots at 500 yards, and John Dubiel a 5½-inch group at 100 yards, five shots. I had shot the rifle enough to know that at 100 yards it would shoot inch to inch-and-a-half groups with the 175-grain bullet. I was not interested in groups, but was interested in seeing what could be done with the rifle in hunting positions, offhand and sitting. Therefore, most of these targets were shot from the sitting position—elbows on knees and no rest of any kind. I could have shot groups by using a muzzle rest; but I wouldn't have known where the rifle was shooting without that rest. The sights were not adapted to fine target work, either, being a Hoffman bolt-sleeve peep, and a Lyman 1/12-inch ivory bead. I have never had better sights for shooting in the woods, particularly running shooting; but any number of better sights can be had for holding the 2-inch center at 100 yards. At that, I could have sighted well enough for a 2-inch ring if the holding and trigger pulling had been equal to the sighting. Most of my bad shots were due to the wind, which swung me from side to side even when sitting.

I elected to take the Hi Vel load as a standard to which the other powders must conform. The 45 grains of Hi Vel with 175-grain bullet had proven highly reliable and accurate, and because of this and because I didn't like to experiment with Hi Vel, I shot that load first. Target No. 2 shows the six shots fired with this cartridge, 45 grains powder and 175-grain Western soft point, as loaded by John. The first four shots hit the 9-ring at 1 o'clock; the fifth was purposely held low to try to get into the 10-ring, and the sixth was held off at 7 o'clock, but went high.

Target 3 was an attempt to get the same center of impact with No. 15½ powder, no change of sight, except that after the five shots had been fired

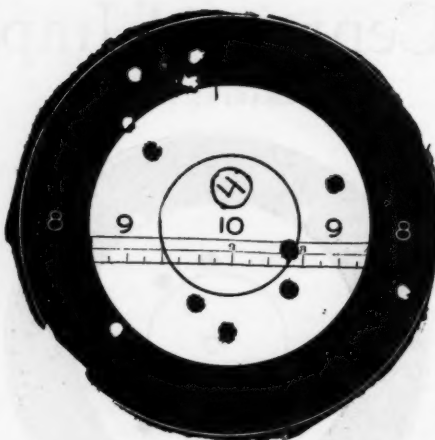


with 49 grains the windgauge was given one click to the left. The three loads tried were 50 grains of powder, 49 grains, and 48 grains, with the 175-grain bullet used throughout. The first shot with 50 grains of powder went low at 9 o'clock, the other four grouped at 11 o'clock, going into the 9-, 8-, 7-, and 6-rings, making about a  $2\frac{1}{2}$ -inch group. The 49-grain load went in just about where the load of Hi Vel had gone, the five-shot group measuring a little under 2 inches. The 48-grain charge had been given a click to the left, and the first three shots went into the 10-ring, the last two being pulled off at 5 o'clock. This may have been partly due to failing light. In any event, I selected the 49-grain load as coming the closest to shooting in with Hi Vel.

The No. 4 target shows the results of three loadings—45 grains No. 1147 and 139-grain bullet, 49 grains No. 15½ and 175-grain bullet, and 45 grains Hi Vel and 175-grain bullet. The 45-grain Hi Vel load and the No. 15½ load were pocketed together, so that I didn't know which was which when shooting them.

The 45-grain No. 1147, 139-grain bullet load proved to be a sweet shooting load, which of course I knew it would be before starting in. It grouped in the top of the 9-ring and in the 8, at 11 o'clock, in about an inch and a quarter. The seven shots of the mixed Hi Vel and 15½ went lower, and may have been held lower, too, trying to get into the 10-ring partly, and partly because the light was failing. Anyhow, this mixed lot held its elevation to within 2 inches.

The next task was to see if the rifle shot the same in the offhand position. In the offhand, as in all the other shooting, the rifle was not tied down with a sling. The idea was to duplicate hunting conditions as far as possible; therefore, while the rifle carried a strap, this was kept tightened down under the barrel. I have found that in deer-shooting in the woods the sling is a useless appendage. There is no time to adjust it, and if it is allowed to sway loose it affects the holding. I know this is contrary to Hoyle, but it agrees with my own experience. For the offhand shooting I selected the load of 49 grains No. 15½ and the 175-grain



bullet. It shot to precisely the same elevation and windage as when sitting. Of the ten shots fired, nine went into the 6-inch ring, and one out at 6 o'clock.

I now went back to 200 yards, sights unchanged. I am not giving these targets, because the dispersion was so great that they could not be published effectively, but will give the ring count for each shot fired, or the size of the ring into which a number of shots went. Shooting was sitting, elbows on knees as before. The first ten shots were with No. 15½ and the 175-grain bullet, small-bore 100-yard target. All shots went into a 10-inch ring, scattered about over it, but more below the center than above. The next five shots were with Hi Vel making 10, 9, 8, 7, and 7—not in the order given. The last two shots were with 45 grains No. 1147 and the 139-grain bullet, and gave a 10 and a 6 o'clock 7. Seven on this bull is equivalent to striking an 8-inch bull. All the sighting was at 6 o'clock, and no attempt was made to change the elevation by holding. I have tried these loads at 300 yards and know they will stay in a 12-inch bull by holding full on. At 400 yards I'd have to begin holding high, and wouldn't hit a deer except by accident.

Now I have three loads which I know pretty well, all the loads I need, except that if I had turkeys to shoot I should load the Western 139-grain full-jacketed bullet with 45 grains No. 1147 powder. This would not tear up a turkey, and he might be hit up to 200 yards. I remember once shooting at a turkey gobbler, running straight away down a path, at 100 yards, rifle .32-40, black powder, and the bullet cut right under the turkey's feet. I remember also shooting at a standing deer, 200 yards, with a double .45-70 rifle. Each bullet dropped a foot and a half under the deer, since I forgot all about holding high. If I'd had a rifle like any one of the four I now own, I'd have been a game-killer forty years ago. These rifles are a .30-06 Remington, a .276, a 7-mm., and a .22 Savage High Power. The latter is just as good as the others for shooting at long range, and has killed heretofore.

This .276 rifle is based upon the 7-mm. bullet and the Holland & Holland .275 case, but the neck and shoulder of the case have been changed. The case doesn't hold so much powder, but makes better use of what

it does contain. The case now holds just about the same amount of powder as the .30-06, but is a far heavier and stronger case. Some of John's loads contained 55 grains of powder—about the limit—and the 139-grain bullet. Velocity is supposed to be 3,200 feet, while the 175-grain bullet has been driven as fast as 2,850 feet. The energies are 3,160 and 3,150, respectively. For my use both are too powerful. I do not like to hustle a bullet through a fine barrel as fast as 3,200 feet, and do not like to develop a pressure above 50,000 pounds with the 175-grain bullet. I have shot the 55-grain charge, and it was the only load that metal-fouled to any extent.

The 139-grain bullet is not supposed to be so accurate as the 175-grain, and probably it is not; but shooting after the style I followed not much difference could be detected. The most useful load for deer-shooting, for me, is the slightly reduced charge of 45 grains of No. 1147 powder and the 139- or the 150-grain bullet. Elevations appear to be maintained to within half an inch at 100 yards, and the missile has ample power for deer—about 2,400 foot-pounds of energy, with a trajectory height over the 200-yard course of about 2.5 inches.

In my opinion the rifle I shot has a bit of advantage over any other rifle that I own. The action is the powerful Magnum Mauser—a more powerful action than is carried by .30-06 rifles. The take-up is very short, and the trigger pull very smooth, without the semblance of a drag, while the sights are better for game-shooting than anything else I have been able to obtain short of a scope. The Hoffman rear peep is very close to the eye and very fast, while it is hard to improve upon the Lyman 1/12-inch ivory bead for running shooting in the woods. That big ivory bead is going to tell you where it is, anyhow, whether it is in the right place or not. Heavy powder charges with heavy bullets have no appreciable effect upon the case, and it is a good one to reload. Energy is slightly higher than that of Express loads in the Springfield, and could be further increased if need be. The rifle balances and fits like a glove; but that is the result of stocking.





# The Bursting of Rifles In Service\*

By A. L. WOODWORTH\*\*

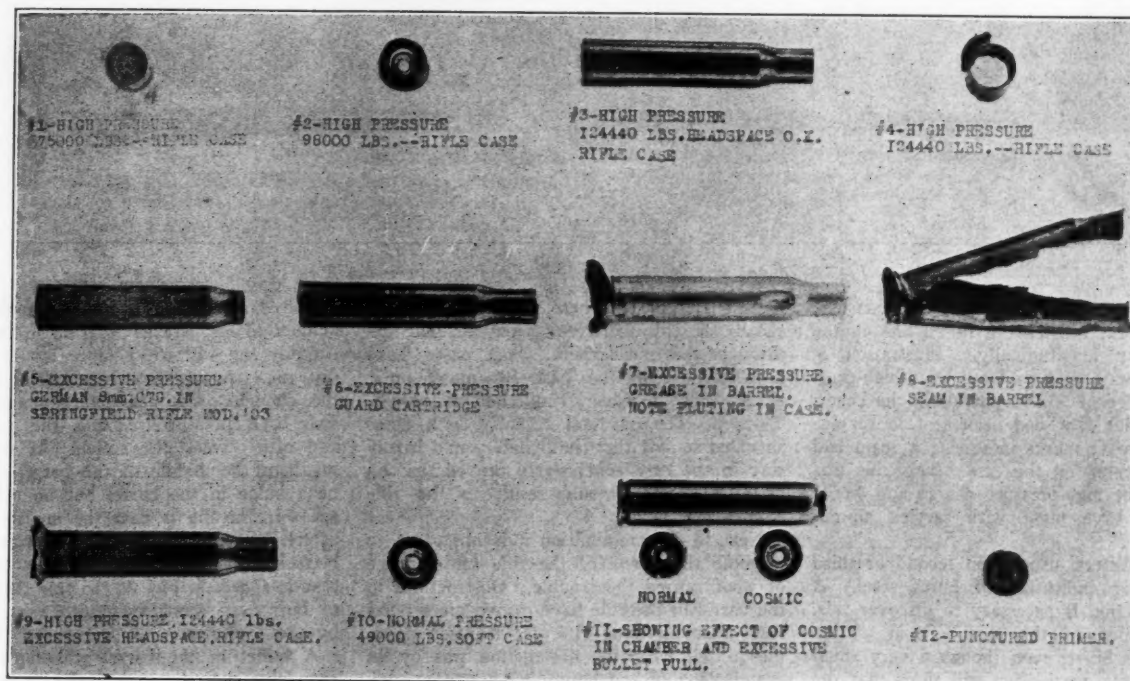


Fig. 1—Cartridge cases and primers removed from shattered rifles

THE object of this paper is not to enter into a scientific discussion of the causes of burst rifles but to give a few simple rules for the investigation of burst rifles which will often result in an immediate determination of the cause by an examination of the evidence at hand and prevent further serious trouble.

That there is a need of a more careful examination of burst rifles is very evident from the correspondence received on this subject at Springfield Armory. There is seldom, if ever, definite information that is of help at all in determining what caused the trouble.

The first and most important thing to examine is the ammunition—particularly the fired case in the rifle at the time of the explosion. It was discovered in experimental work on the 1903 model rifle in 1902 that the unsupported rimless head of a cartridge gave entirely different results from the old rim case which was entirely inclosed by the chamber. It was also noted at that time that the head of the case after firing was a very fair gauge of the amount of pressure developed, and in many cases the fired case gave positive indication as to what caused high pressure.

The primer in a rifle case developing normal pressure—48,000 pounds—will be convex, at 52,000 pounds the primer will begin to flatten out and at about 75,000 pounds will be flattened back on a line with the case

head. At this pressure primers may extrude through the striker hole, allowing an escape of gas through the action or leakage around the edge. The case will also show swelling around the head just below the extractor groove. This escape of gas to the rear often causes the shooter considerable inconvenience but does not as a rule injure the rifle in any way provided the rifle is properly assembled.

Oftentimes reports have been received at Springfield Armory of rifles bursting. Investigations were made immediately only to find that an escape of gas of this kind had occurred and that the rifle was not at fault or the barrel, receiver or bolt injured. At about 98,000 pounds, which is the maximum pressure that can be developed with the regular powder and bullet used in this cartridge, the primer pocket opens up and the case head swells out, allowing a violent escape of gas through the action that causes considerable trouble to some parts of the rifle but does not shatter the barrel, receiver or bolt provided it is of properly heat-treated steel. The damage in this case usually consists of a shattered stock, blown-off extractor and bulged magazine and floor plate. In this case as in the first we do not agree with the reports that have been often sent in that the rifle has burst.

At around 124,000 pounds' pressure obtained by using a quicker-burning powder the head of the case is completely blown off. This pressure is about the limit that the 1903 model rifles will stand and will in

most cases burst the rifle. Either the barrel, receiver or bolt, or all three, are quite likely to be shattered. To develop this pressure it was found necessary to use a powder that burned so quickly that a very high pressure was developed before the case head—the weakest point—gave way; otherwise the pressure would be released and none of the important parts of the rifle would be fractured.

Frequently, rifles are fired with grease in the barrel. The cartridge case when removed from the rifle will be fluted at the forward end of the first cone (illustration 7, Fig. 1). If the bullet has excessive pull, as in 1921 Frankford Arsenal National Match ammunition, and there is oil or grease in the chamber the case will have the appearance of that shown in illustration 11, Fig. 1. Grease in the barrel causes very high pressure and in addition the case, instead of gripping the chamber and helping to take up some of the shock, will slip and allow all the pressure to be taken up by the bolt.

The damage to the rifle depends on the amount of grease in the barrel and its location. If there is considerable grease near the bullet seat the bolt and receiver are ruined and the stock and other parts shattered. There is seldom any injury to the barrel. If the grease is in the forward end the cartridge case is fluted and the base shows high pressure only. The barrel is bulged but the receiver or other parts of the rifle are not injured.

Defects in the steel of the barrel, such as inside seams or burnt steel, often can be

\* Reprinted from "Army Ordnance."  
\*\* Proof assistant, Springfield Armory, Springfield, Mass.



Fig. 2—A rag left in the barrel near the muzzle end did this

detected by an examination of the cartridge case. A seam will leave a raised line on the case usually longitudinally. Illustration 8, Fig. 1, shows a case split out by a high-pressure cartridge of 75,000 pounds in the chamber of a rifle that had been sent in for examination after marks indicating a seam had been discovered on the case. This rifle was burst by the high-pressure charge and would eventually have burst with service ammunition.

Raised blisters, usually on second or third cone, are an indication of burnt steel. A close inspection is necessary to discover this.

Examination of the case left in a rifle after it has burst, even though a very small section is left, very often will show that the wrong ammunition has been used. Illustration 8, Fig. 1, shows a German case found in a burst rifle. The bullet of this German cartridge is so large that it is difficult to chamber in a new rifle but will chamber in a rifle with a worn barrel without much trouble. The neck of the German case is shorter than the 1906 case and has crimp marks around the neck different from any manufactured in the United States. In all known cases the rifle has been completely shattered by the German cartridge. A case ruptured about a quarter of an inch from the extractor groove is indicative of excessive head space.

Punctured primers, as in illustration 12, Fig. 1, where there are no indications of high pressure usually show that the striker hole is too large. A soft cartridge case that has in some way been allowed to get in with the regular cases will expand at the head considerably and cause trouble with a normal load of powder. The case head will have the appearance of too much pressure but the results will not be the same. There will be no evidence of excessive pressure on the

locking lugs or elsewhere and the only damage to the rifle will result from escaping gas through the mechanism. Soft cases have been blamed in the past for many burst rifles. This, however, could not be proved. Tests in the past and recently with cases annealed so soft that the bullets would hardly stay in the case conclusively proved that no material damage would result to the rifle from firing them.

Next to the ammunition it is important to examine the barrel of the rifle for evidence of what caused the trouble. Obstructions in the barrel of the rifle have caused more burst rifles than anything else. It is often possible to tell what the obstruction was by an examination of the bore.

Patches or rags or cleaning material head the list of obstructions. A patch does not always cause trouble: sometimes it is blown out without doing damage. It always seems, from an examination of a barrel that has been burst from such obstruction, that the point of the bullet catches in the rag and, due to the rifling, winds around the rag and wedges the barrel apart on one side. The barrel always has a twisted appearance and the primary bulge is always greater on one side.

The damage to the rifle depends on the amount of rag and its location in the barrel. An oily rag will cause more trouble than a dry rag. A rag of considerable size near the chamber will occasionally cause excessive back pressure, expand the case head and often wreck the action. If the rag is in about the middle of the barrel there will be a bulge in the barrel but no other damage. If the rag is near the muzzle end the barrel shows a slight bulge, although this has been known to split the barrel. A typical case is shown in Fig. 2. In this case a piece of burnt rag was driven into a crack made by the explosion.

A bullet in the barrel will cause a very even ring entirely around the barrel at the lower end. If the bullet is within an inch of the forward end of the chamber the rifle is completely shattered. If in the center of the barrel a bulge occurs; if near the muzzle the barrel is split, sometimes in several places. Two very good examples are shown in Fig. 3.

Mud or grease in quantity in the muzzle give about the same results. The bulge, however, is not as abrupt at the lower end but tapers out. If there is any considerable quantity of grease or mud throughout the

barrel the rifle is nearly always completely shattered. A typical example is shown in Fig. 4. If the barrel is obstructed in the rear end it seems to make little difference whether the receiver is of the old heat treatment or the new except that in the latter case the receiver does not shatter but merely bulges and sometimes splits. In any case the rifle is ruined.

Failures from defective material are not frequent and it is difficult to give rules for the inspection of the steel. It is well always to scrutinize the parts at the point of the breech. Some-

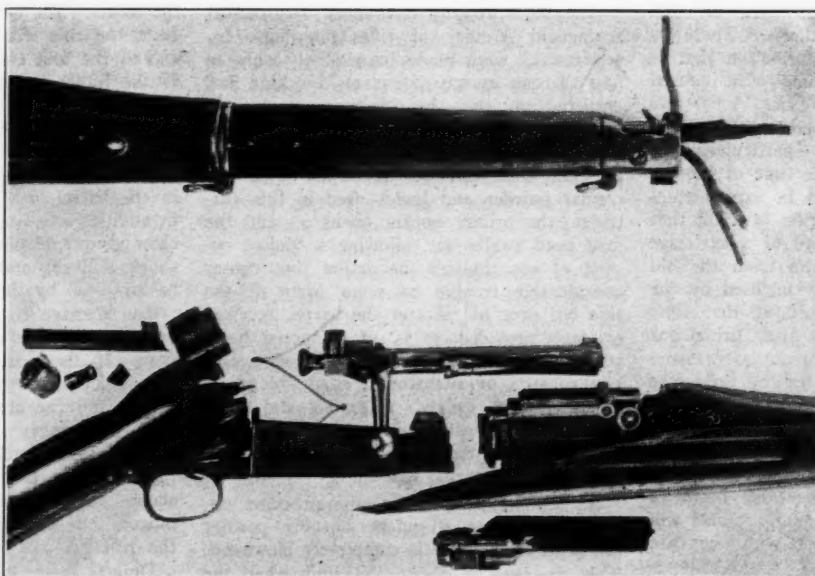


Fig. 3—Rifles shattered by bullet obstruction in barrel





Fig. 4—Mud or grease in quantity in the barrel was responsible for this

times defects are very noticeable as in the case of seamy or burnt stock. On a few occasions burst rifles have been returned that were thought to have been ruined because the bolt was not completely closed, but in all cases examination of the bolt lugs and receiver shoulders showed that the bolt was fully closed.

When a burst rifle is received at Springfield Armory it is first carefully examined and notes made of all broken or injured parts. If there is a fired case in the barrel, as is almost always the case, it is removed and examined and the bore of the barrel is carefully scrutinized for bulges or breaks. The rifle is then dismantled and parts examined carefully.

As an illustration, a diagnosis of rifle No. 821014 is given:

**Receiver:** Locking shoulders set back .018 inch. Rear right side upset. Safety lug shows good stretch.

**Bolt:** Shattered. Handle, both locking lugs and extractor broken off. Bolt broken in

two; no stretch. Steel at point of break clean but coarse.

**Barrel:** Slight bulge about eight inches in from breech.

**Cartridge Case:** Head three-quarters blown off. Second cone fluted on case.

**Stock:** Shattered.

In this case the bolt was examined by the Metallurgical Department at Springfield Armory and the pressure of the ammunition being used at that time was taken. The rifle, as the diagnosis shows, was burst by an obstruction of grease in the barrel.

Thus it may be set down as a cardinal rule: Be sure of the ammunition and certain of the condition of piece. The examples cited in this article indicate beyond peradventure that the "wrong" ammunition—a condition for which the rifleman is not so much to be blamed—and the presence of the lowly cleaning rag and grease—a condition for which the rifleman is entirely responsible—are the most common causes of the bursting of rifles in service.

## A New .30-Caliber Bullet

By M. H. GOODE

IT WILL be of interest to big-game hunters and riflemen to learn that the Western Tool & Copper Works, of Oakland, Calif., has recently developed a new .30-caliber bullet for the .300 Magnum cartridge. Many sportsmen owning rifles of this caliber have complained of their inability to secure ammunition loaded with bullets tough enough to insure deep penetration on big game. Most of the 220-grain .30-caliber bullets now on the market were designed for rifles giving velocities of 2,000 to 2,200 feet. When the .300 Magnum was placed upon the market, it was assumed by the designers that the regular Springfield bullet would perform satisfactorily even though the velocities were speeded up to 2,550 or 2,600 feet. With 220-grain bullets, however, it was soon demonstrated that

the velocity of the .300 Magnum was too high for the old-type bullets.

In my opinion it is a serious mistake to speed up velocities very much beyond the velocity for which the bullets were designed. At a velocity of 2,550 they expanded and broke up much too quickly, especially at short range. Naturally, such bullets could not be depended upon for deep penetration on our heaviest game. I had used the 220-grain Western Cartridge Co. bullet and the 200-grain Western Tool & Copper Works bullet in the .300 Magnum rifle on elk and moose in Wyoming, and Mr. C. E. Sykes had given them a thorough trial on moose, caribou, and Kodiak bear in Alaska. Neither of us was satisfied with the performance of the bullets. After giving considerable thought to

the matter, we decided that "something ought to be done." We felt that a heavy bullet with an extra thick, tough jacket would insure greater killing power because of its ability to drive through bone and gristle.

About one year ago we enlisted the assistance of Colonel Whelen in the matter, and we began to make headway immediately. After the exchange of many letters the Western Tool & Copper Works agreed to conduct a series of experiments on the feasibility of a 225-grain bullet along the general lines of their well-known 200-grain open-point copper-jacket bullet, with which most Springfield owners are familiar.

After experimenting on the bullet for a year the company decided upon a certain design of bullet, and a small quantity of these bullets was manufactured for testing purposes. These bullets are now being sent to owners of .300-caliber Magnum rifles for individual tests. It must be understood, of course, that the bullets are still in the experimental stage. If these bullets meet every requirement of sportsmen, they will be permanently adopted and will be available to the public in due time.

I have not had an opportunity to try out the bullets for either accuracy or penetration, but if the killing qualities can be judged from their appearance, they will certainly prove deadly missiles. The bullets measure approximately 1 5/16 inches in length, have open or conical points, the jackets are made of heavy copper alloy, and they weigh 225 grains, being the longest and heaviest .30-caliber bullets to come to my attention. If further testing proves conclusively that they have good penetration and are up to standard in accuracy, the bullets will undoubtedly prove a great improvement over any heavy .30-caliber bullets now on the market for use in the .300 Magnum, and should render that rifle a most excellent weapon for long-range shooting in Alaska, or for use on the soft-skin game of Africa.

I am in receipt of a letter from the manufacturer in which the following appears: "The tests have shown that the new 225-grain bullet will stand an increase of 150 f. s. velocity over our 200-grain .30-caliber bullet before breaking up in pine boards (green lumber). The breaking of the 200-grain weight occurs at 2,600 f. s., and the 225-grain weight breaks at 2,750 f. s. The distance in each case is 75 feet from muzzle of test tube. The accuracy compares very favorably with that given by our 200-grain bullet. We do not think that the 14-inch twist in your rifle barrel will cause any trouble in handling the longer bullets at any game-shooting distances."

This report bespeaks a popular reception for the new bullet. The 225-grain Western Tool & Copper Works bullet should be just the medicine for moose, Kodiak bear, and African soft-skin animals; the 200-grain for elk, caribou, and mountain goat; the 172-grain for mountain sheep, deer, and other light animals. The Western Cartridge Co.'s 180-grain open-point, boat-tail, Lubaloy bullet could also be used for the latter animals. The .300 Magnum should come into its own with this range of bullets.

# Watch Out For "Buck Fever"

By ALFRED P. LANE

ONCE upon a time a young hunter went into the woods on his first hunting trip after big game. As a rifle shot he was first class. He could ring the gong on a bull's-eye target most every time, both at slow shooting and at the snap variety.

Anyone with half an eye could see that the young fellow was brimful of confidence. He was praying and hoping for a chance at a buck—the larger the better. Besides meat, he hankered after an antlered head that would surpass any trophy so far taken out of that particular neck of the woods.

His prayer was answered. As he cautiously pushed aside the branches that obstructed his view across a small clearing, he saw standing on the opposite side of the open space the veritable grand-daddy of all the deer family. The animal was broadside on and not over thirty yards away—a shot so easy that no man with any pretense to being a hunter could possibly miss.

It would be nice to chronicle the fact that our brave hero threw his trusty rifle to his shoulder and forthwith downed his prize on the very first shot, but that isn't what happened.

At the very first sight of the buck, every nerve in his body started to do a violent jig dance. When he finally overcame the paralysis that gripped him and threw his rifle to his shoulder, the muzzle described an arc that would have made a snake turn green with envy.

And then to cap the climax, instead of firing a shot, he proceeded to slam the lever back and forth again and again, without pulling the trigger at all! About the time that the third unfired cartridge hit the ground, the buck decided that there must be something wrong with the neighborhood, and promptly made for parts unknown, with a snow-white tail bobbing behind as a tail-light.

The buck having disappeared, our hero slumped down on the nearest hummock in a complete state of collapse.

I haven't named the hero of this stirring episode for the simple reason that no one knows just how many heroes have fallen victim to buck-fever in somewhat similar fashion.

Buck-fever is to the shooter what stage-fright is to the actor. It works in the same way and produces equally disastrous results. Although closely akin to ordinary fear, it certainly isn't quite the same thing, because a man brave enough to give battle to his weight in wildcats may be rendered quite helpless by stage-fright or buck-fever. Every one has, at some time or other, seen a big, burly, gentleman with the heart of a lion and the muscles of an ox get up and try to make an after-dinner speech. His face gets as red as a beet. Little beads of perspiration stand out on his forehead, and he usually gasps like a fish out of water.

That is generally the result when an inexperienced man tries to make a few remarks

with a lot of people staring at him, but like lightning, stage-fright or buck-fever may strike in the most unexpected places.

Hard-boiled actors, accustomed to facing all kinds of hostile audiences, have been known to get an attack so severe that the curtain had to be rung down until they could snap out of it.

In the same way, buck-fever is not necessarily a disease of the beginner in shooting. It often hits the old-timer as well, both on the target range and while hunting game.

There are all degrees of buck-fever, ranging from the practically complete nervous collapse to the mild cases that simply throw a shooter's nervous control out of gear enough to make him miss what he is aiming at. Cases of the latter type are more frequent than most people realize. I recall one incident that illustrates the prevalence of the mild type of buck-fever with striking clearness.

Ten men, all supposedly seasoned pistol shots, were lined up to shoot a special contest held at the National Matches. On the first string of five shots rapid fire, not a single man got a score of five bull's-eyes. On the second string, nine out of the ten men had perfect scores. According to the theory of chances, that particular combination of scores could not happen once in a million times, and so the answer undoubtedly was a case of buck-fever for practically every man on both teams and I'm quite sure that most of them didn't know they had it. I know I didn't!

Then there is the case of a pistol shooter I know who can shoot scores of 95 and such like in practice, but when he lines up his sights on a target where his scores are actually going to count in a match, Old Man Buck-fever gets a strangle hold on his trigger finger and he turns in the rottenest scores you ever did see. And he can keep on shooting until he has long, white whiskers without ever becoming a good match shot unless he gets wise to himself and takes steps to cure the trouble.

Fishermen always have a plausible excuse for coming home with an empty creel, but the average shooter can make the fisherman look like a piker in this respect.

There is no use trying to account for a poor score at the targets, or a rank miss at game by putting up an "alibi." You don't fool the rest of the shooters, and fooling yourself won't get you anywhere.

This alibi habit is so prevalent that there are a whole string of alibis that are recognized as stock in trade by the shooter. "The light was bad," "the trigger didn't work just right," "my sights were set wrong," are some of the more common ones that are dragged in by the heels by the shooter in order to dodge the obvious fact that he shot a rotten score.

I am inclined to believe that there is an intimate relation between this alibi business and the trouble known as buck-fever. If a man needs to have his pride bolstered up by a bit of fiction about bad light, bad trigger

pull, or what have you, the over-estimation of his own ability is going to make him a fair victim for the first buck-fever microbe that happens along his way. In other words he is almost sure to go to pieces when he gets into a really important shooting match.

Perhaps the first and most important step for the shooter to take in attempting to overcome buck-fever, if he is subject to it, is to get right down to cases and face the facts about his shooting. Don't try to kid yourself into believing that the fates are against you and that if only this and that weren't as they are you could put every shot squarely in the center of the bull's-eye. If you happen to make a rotten score, admit that it's the best you can do, and then promptly forget it in the resolve to do better next time.

And if, by chance, you are lucky enough to do an exceptionally fine bit of shooting, don't get all puffed up about it. The theory of averages may not be quite as sure as death and taxes, but as applied to shooting it certainly works out with most uncanny accuracy.

The exceptionally good score of one day is sure to be balanced by a poor score some other day, so that your average for several hundred shots will come out about as usual. In fact, the only way you can tell whether your shooting is improving or not is to compare the average of each five hundred shots with the succeeding five hundred.

Keep that clearly in mind when you are going into an important match, and above all, try and keep your mind from dwelling on the importance of the competition. If you make a bad string on your first target, or you miss the first two or three birds in game shooting, remember that Old Man Average will be pulling for you in the next shots.

That impersonal, detached sort of manner will often serve to pull a man through a difficult match when nothing else will.

Of course, such a frame of mind wouldn't lend wings to a runner's heels or height to a jumper's vault, but shooting and other types of sport are radically different in this respect.

The kind of training that will send a runner to the tape with every nerve under the highest tension and every muscle straining to go, would, if applied to the shooter, result in a perfectly awful score.

To make a success of the shooting game with six-gun or any other weapon, keep your shirt on, pin your faith on Old Man Average and adopt the attitude that you don't care a fig whether you win or not, so long as you do your best, and you will have on armor that buck-fever cannot pierce!





# Solving the Vermin Rifle Problem

By F. C. TILDEN

I HAVE a new rifle. Now I admit, at the very beginning, that I have no need for a new rifle. I have four or five others that are by no manner of means worn out. I do not depend upon the rifle for food. I agree with Captain Crossman that as long as steak and wieners can be had from the butcher I am not greatly interested in the meat side of rifle-shooting; but, nevertheless, I quite agree with another friend who says that "though I need no more rifles there are at least a half dozen that I really must have."

There are two reasons why I like a rifle. First and foremost, because it is a beautiful instrument of precision. Most of us are so made that we like the challenge of the utmost possible, or even the impossible. When I hear of a rifle that is capable, from machine rest, of putting all of its bullets into an inch and a half at 100 yards I can not rest till I have tried to hold that same rifle accurately enough to equal its possibilities. It does not matter that, except now and again through pure chance, I always fail. There is the same challenge here that leads the golfer to try for a "one" on the 300-yard hole.

The second reason why I like a rifle is that, though I no longer kill much game, I still love it and like to see it increase. Consequently I am a hater of those things that destroy game—namely, vermin of all kinds. And since this same vermin is also destructive of crops and domestic fowls and animals I feel a double urge to destroy the said vermin.

The vermin rifle has always particularly appealed to me because of the above reasons. To kill a crow or a hawk at 100 or 150 yards the rifle must be superbly accurate. And when it has demonstrated at the target that it possesses this accuracy, then comes the pleasure of trying the long ones at the wily crow and the elusive woodchuck.

Until recently my battery for the extinction of vermin has consisted of a remodeled Russian 7.62, which I have been shooting with the load recommended by Mr. W. E. Browning in the June (1927) number of the *RIFLEMAN*—that is, 29 grains of du Pont No. 80 with the .32-20 80-grain hollow-point bullet. This load does all Mr. Browning said it would. Like Captain Curtis, however, I feel that it is rather beneath the dignity of a .30-caliber to put it at work killing crows. Consequently I have been using lately a Niedner-Krag, .34-40 shell necked down to .25 caliber. This is a wonderfully accurate flat-shooting rifle and cartridge. I have been using 32 grains of du Pont I. M. R. P. No. 17½ with Winchester 87-grain soft-point gilding-metal jacketed bullet. Results splendid.

But this super-high-power rifle has always worried me a little when shooting in farming communities, even when broken and hilly enough so that it is always possible to shoot into a hill. So my companion in the

flivver when out on country by-roads on the lookout for crows, hawks, etc., has been a .25-20 single-shot, one of the old target Ballard's one reads so much about in these days. My load for this gun is 3 grains, by weight, of du Pont No. 80 and 10 grains of FFG black powder. This has been a fine shooting load and does not seem to be hard on the barrel, but of course it does not make a flat-shooting cartridge, and was disappointing at ranges much above 75 yards.

So last summer I determined to look for a final solution of the problem, and bought from the Niedner Rifle Corporation one of their new Baby high-power .22-caliber barrels. The rifle is a No. 44½ Stevens action, Model 45, set trigger and all the trimmings that used to go with the fine Schuetzen type of single-shot rifle of the good old days. To this action Niedner fitted one of his chrome-nickel-steel barrels chambered for the Baby .22. The rifle is especially stocked with a dense, heavy piece of walnut in the Schuetzen model, but with the shotgun type butt plate. The drop at comb is 1¾ inches from the line of sight of the Belding & Mull 5-power telescope with which the rifle is fitted. An extra long fore arm of the same walnut, and Army sling brings the weight of the rifle to 10 pounds. The barrel has the dimensions suggested so often in the writings of C. S. Landis—1 1/16 inch at the receiver, 11/16 inch at muzzle and 26 inches long.

As all are probably aware, the Baby .22 high-power is the .32-20 repeater shell necked down to .22. The rifle has the tight chamber for which the Niedner rifles are noted, and the fired shells can be reloaded several times without even resizing the necks. The load that has finally been settled upon for this particular rifle is 11 grains of No. 50 du Pont powder—about a grain less than the recommended maximum for this cartridge. The "Ideal Handbook" gives the velocity of this cartridge, with 11½ grains of No. 50, as 2,700 feet, estimated. Mr. Branch, of St. Louis, is reported to have chronographed the cartridge loaded with 10½ grains of No. 50 and found the actual velocity of the load to be 2,400 feet. My load of 11 grains is probably giving about 2,450 to 2,500 foot-seconds at the muzzle.

The bullet is a special one made by the Niedner Rifle Corporation for the cartridge. It is copper-jacketed, with a very small exposed lead tip, not more than a thirty-second of an inch of lead showing. It weighs 44½ grains and is .223 inch in diameter, fitting exactly the groove diameter of the barrel, which is .223 inch.

While a little heavier than I intended it to be, largely on account of the unusually dense and heavy walnut in stock and fore arm, the rifle is just all anyone could wish. At 100 yards, shoulder-and-elbow rest and sandbag under fore arm, with telescope sight as above, the rifle shoots consistently into a

2-inch group with very few—practically no—wild shots. Of course this can be done only on days with little wind, as the very light bullet drifts easily in a strong breeze. This drift can, however, be allowed for once the rifle is learned. In very strong winds, nevertheless, it is not the rifle for 100-yard shooting. Those are the days for the Niedner .25 with 100-grain bullet at 2,800 foot-seconds.

This rifle seems to me to be ideal for vermin. The bullet explodes on contact and expends all its energy in the body of small animals. Crows are instantly killed and completely wrecked. I have not had the opportunity to try the bullet on woodchuck. Further, the bullet seems to disintegrate upon striking even ordinary surface soil. At least I have never heard the drone of a ricocheting bullet after shooting into the surface of a field at the ordinary angle made by offhand standing shooting. The rifle and cartridge seem ideal for shooting in Indiana communities.

A word about another rifle—that is, the adaptability of the Russian 7.62 action to the .30-40 cartridge, or better still the .30-40 necked down to .25 caliber. The .25 Krag shell works perfectly through the Russian receiver and magazine, and the head of the shell fits the bolt head nicely, being only one or two hundredths of an inch smaller. This makes another nice rifle for remodeling for that "old friend brought up to date"—the .30-40 that Mr. Mattern wrote about so interestingly in a recent number of the *RIFLEMAN*. Fitted with either a Krag barrel or the Niedner-Krag, from 8,000 to 10,000 pounds more of pressure can be safely used than in the Krag action, with corresponding increase in velocity. Properly stocked and with such a barrel the Russian is handsome enough and powerful enough to satisfy anyone.

## THE NEW BELDING & MULL VISIBLE POWDER-LOADER

HAND-LOADERS will be interested to learn that Belding & Mull, Inc., is now making a new type of powder measure, or loader.

The Belding & Mull Visible Powder Loader, as the name implies, is featuring the safety idea. Through a glass front the operator sees the powder fed into the adjustable charge-tube; and again, when he lowers this tube, at each complete stroke of the handle he sees the load, and exactly what goes into each shell.

The machine is simple to operate and convenient to adjust. The makers claim that the Belding & Mull Visible Powder Loader does not give variations in the load, due to jarring or to differences in the depth and weight of the powder column in the hopper. This uniformity of operation is accomplished by separating the actuating powder column in the sliding charger from the supply powder column in the hopper.

# .22-Caliber Barrels and Groups

By DR. CARL W. WAHRER

MY ACQUAINTANCE with the .22-caliber target rifle is of comparatively recent date. For many years my shooting was limited to the pistol and revolver, and with the exception of a few barrels by Pope, Wilburn, and Peterson, I was content to take the accuracy of my handguns for granted. As a matter of fact, I have not found in twenty years a single Colt or Smith & Wesson barrel that was not entirely satisfactory. Where inaccuracy existed it was usually due to faulty assembly of parts.

When, however, I fell a victim to the small-bore-rifle epidemic that has swept the country in the last few years I found the possibilities of the .22 as a target gun apparently shrouded in mystery. Colonel Whelen has repeatedly stated in his columns devoted to the Dope Bag that the heavy-barreled .22-caliber target rifle will average 2½-inch groups at 100 yards.

I recently talked to a well-known rifle shot of southern California who is quite positive that to score a possible at 100 yards the marksman must have not only the best equipment and ammunition, but also a good bit of luck. In his opinion no .22 cartridges now on the market will make 2-inch groups at 100 yards consistently.

On the other hand, at every big rifle match so many possibles are shot that it has been necessary to place an inner ring 1 inch in diameter inside the 2-inch 10-ring in order to decide the increasingly large number of ties. At the metropolitan rifle matches some time ago, according to an advertisement in the *RIFLEMAN*, there were more than 100 10-shot possibles fired on the 100-yard target.

I found upon inquiry that most of the small makers of special barrels are wary when approached upon the subject of guaranteeing the accuracy of their product. One gunsmith who has made many fine barrels offered to guarantee seventeen or eighteen shots out of twenty to touch a 2-inch circle. He thought the other two or three shots might enlarge the group to 2½ to 3 inches. Most of the well-informed men with whom I have discussed this question believe that the art of boring rifle barrels has advanced very little, and that the great improvement in scores and groups is due to improved ammunition and sights. The conflicting opinions regarding accuracy which I found among my friends and in the pages of the *RIFLEMAN* led me to attempt the task, so pleasant to a gun-crank, of discovering for myself exactly how much one has a right to demand of the finest small-bore target rifles and ammunition now available in this country.

My plan for making the tests which I am reporting did not include the shooting of any set number of groups. I decided to test each rifle with enough of several well-known brands of .22 cartridges to give me a pretty definite idea as to which brand would give the smallest groups with that particular barrel. If several makes of ammunition shot

equally well, and U. S. N. R. A. or Remington Palma were among them, I used one of these makes for the ultimate test, as they are favorites of mine and I had a large quantity of each on hand.

After deciding this important point, of which ammunition a barrel preferred, I shot the gun from rest enough to become familiar with it, and when entirely satisfied, I shot ten or more consecutive groups of ten shots each, usually at the same time of day, between 4 and 6 o'clock in the afternoon, and these are the groups that are credited to each gun. I used a 14-power Fecker scope with very fine cross hairs which I centered on a small square of white adhesive plaster stuck on the 100-yard bull. A rest for shooting was obtained by arranging several sand bags in such a way that the rifle, right arm, and face of the shooter were supported by different bags. By taking some pains I believe that one may thus achieve results almost equal to a machine rest. All shooting was done on still days, no attempt was made to hurry the shooting, and all groups were consecutive.

The shooting was done on the ranch of Mr. G. A. Carsten, near Eldorado, Calif., where the clear mountain air, brilliant sunshine, and the dead calm of late afternoon gave shooting conditions that were ideal. Much of the pleasure I derived from the testing of these rifles was due to the kindness and courtesy of Mr. Carsten, who aided me in every conceivable way; and also I must acknowledge the assistance of Miss Thelma Carsten, who shot many of the finest possible groups in testing the guns for the various brands of ammunition. The shooting was done over a measured range of 100 yards; and a description of each rifle and its groups follows:

(1) Winchester 52, factory No. 672; one of the early models of this well-known rifle; has been fired over 20,000 times, but the bore is still perfect. It was restocked by Max Murray, of San Anselmo, with one of the most beautiful stocks I have ever had the pleasure of seeing. Remington Palma cartridges were used in shooting the following groups: 1¾ inches; 1 15/16 inches; ¾ inch; 1½ inches; 1¾ inches; 1½ inches; 1¾ inches; 1¾ inches; 1 3/16 inches; 1 7/16 inches.

(2) This rifle is a Pacific Ballard action with double set triggers, and a heavy Winchester 30-inch barrel relined by E. R. Hitchcock of Oakland, Calif. The rifling has eight grooves and is a fine piece of work. The gun weighs 13½ pounds. The testing of this very accurate barrel was interesting because it is a relined barrel. This barrel had been shot about 2,000 times before shooting the groups for these tests. U. S. N. R. A. cartridges were used, and groups were as follows: 1½ inches; 1 7/16 inches; 2¾ inches; 1¾ inches; 1¾ inches; 1¾

inches; 1¾ inches; 1 15/16 inches; 1½ inches; 1½ inches.

(3) This is a B. S. A. rifle especially selected for one of the noted rifle shots of this country. Some time, money, and effort were spent in securing as accurate a gun as the factory could furnish; and in my opinion no better barrel was ever made. The gun has been restocked with a very beautiful piece of fancy wood after the design of the rifle described in the *RIFLEMAN* by Mr. Russell Wiles some years ago. This barrel shoots several different makes of cartridges equally well, and both Remington Palma and U. S. N. R. A. were used in making the following remarkable groups: 1½ inches; 1¾ inches; 1½ inches; ¾ inch; 1 inch; 1¾ inches; 1¾ inches; 1¾ inches; 1½ inches; 1½ inches; 1¾ inches; 1½ inches; 1 5/16 inches.

(4) No. 4 is a Winchester single-shot action with double set triggers and Schuetzen stock fitted with a heavy 30-inch Peterson barrel. This rifle was used by Lawrence Nuesslein in winning the small-bore title at 50 meters in Rome in 1927. It had been fired perhaps 3,000 times before I used it in these tests, and has a decided preference for U. S. N. R. A. ammunition. These groups were a little larger than those made by the B. S. A.: 1¾ inches; 2 inches; 1¾ inches; 1½ inches; 1½ inches; 1 15/16 inches; 1 7/16 inches; 1¾ inches; 2 inches; 1¾ inches; 1 3/16 inches; 1 9/16 inches.

(5) This rifle is also a Peterson. The barrel is 30 inches long and very heavy, fitted to a Stevens single-shot action with double set triggers. This was originally one of the old Stevens-Pope .32-40 target rifles, and has an engraved action and a very beautiful stock. The gun complete weighs close to 16 pounds, and is purely an offhand rifle. This gun was brand new when I started shooting these groups; in fact, I fired less than 100 rounds through it before making the final groups with U. S. N. R. A. cartridges: 2 inches; 1½ inches; 1½ inches; 1¾ inches; 1¾ inches; 1 7/16 inches; 1¾ inches; 1¾ inches; 1 11/16 inches; 1 9/16 inches.

(6) No. 6 is a Ballard action with single trigger, prone stock, and heavy 28-inch barrel made and rifled by George Titherington, of Stockton, Calif. Mr. Titherington is well known in California as a maker of very accurate .22- and .30-caliber rifle barrels. He is a member of the famous Roberts Island Rifle Club, and the members of this club use Titherington barrels almost exclusively. He is a careful and painstaking workman, and will not be hurried when rifling a barrel. Throughout the Sacramento and San Joaquin Valley the remarkable accuracy of his rifle barrels is well known. This particular rifle is a fine piece of workmanship, and the groups shot with Remington Palma cartridges are evidence that Titherington's

(Continued on page 34)



# My First Big-Game Hunt

By WILL J. MILNE

I WAS employed by a mining company last fall to examine some mineral claims in the West Kootenies of British Columbia, and it was there that I met with the following experiences, and landed my first big game:

Upon my arrival at Kaslo I found that the man who was to show me over the property was away on a hunting trip and might not be back for some little time, which meant that I would have a few days to do with as I saw fit.

In talking to some of the old-timers, I found that there were quite a number of caribou shot each fall on the Upper Duncan River some 60 miles away, and decided to try for a good head, as this might be the best opportunity I would ever have to get a shot at big game.

A young prospector and trapper by the name of Art Cody, with whom I had become acquainted, offered to go along and act as guide, and as he knew the Duncan district well, I engaged him at once, and proceeded to purchase such supplies as he said would be necessary for the trip. I also rented a high-power rifle and purchased some ammunition for same.

We left Kaslo on the Canadian Pacific passenger boat one Saturday afternoon; and after a delightful trip of a few hours, landed at Lardo, which is situated at the north end of Kootenay Lake. Here we took train for Howser station, which is located on the Lardo-Gerrard branch of the Canadian Pacific Railroad.

The town of Howser lies about 1½ miles from the station, and is situated on Howser Lake, a beautiful sheet of water some 10 or 12 miles long, by about 2 miles wide. The Duncan River empties into this lake at the north end, and above that point it is known as the Upper Duncan, while below the lake the river is known as the Lower Duncan. Years ago river steamers made regular trips from Nelson and Kaslo on Kootenay Lake, to the head of navigation on the Upper Duncan, some 25 miles north of the town of Howser, but the service had been discontinued long since, so the only means of travel for us was by motor boat or canoe. We spent the night at the one hotel the town boasted, and the following morning secured a large Peterborough canoe, loaded our outfit into it and set out for the land of the caribou. The weather was delightful, the lake as calm as a mill pond, and my guide, Art, was a good hand with the paddle.

At the head of the lake we landed, built a fire and had something to eat; then proceeded on our journey. In place of the quiet waters of the lake, we now had the swift waters of the Upper Duncan to paddle against; so could not make very fast time. Then, too, as the water was very low, we had sand bars to contend with; so about 4 o'clock in the afternoon we landed at an old log cabin on the east bank of the river known as Howser Cabin. Here we made ourselves at home, as this was to be our headquarters for at least a few days. We

enough to see. About a mile up we landed on the west bank, pulled the canoe out and hid it in the bushes; then, putting on our pack sacks, we took our rifles and began the steep climb up the mountain side. As Art was sure that we would be able to secure a caribou head and return that same day, we had not troubled to bring blankets with us, and had also taken but a small amount of food, as we should probably have enough to pack on the return trip without surplus provision.

Following the course of a small mountain stream, we climbed steadily upward, and about 10 o'clock came out on a small bench, or level spot; and there about 50 yards ahead of us were three fine mule deer.

When we had left the cabin that morning Art had cautioned me against firing my rifle before we got to where there were caribou, as he said the noise would start the herd moving for another part of the hills. So when we came upon the three mule deer, I prepared simply to take a snapshot of them with my camera. But the camera was in my pack sack, and before I could get it out the deer had started up the steep mountain side and were soon hidden by the brush and trees. Shortly afterward they came into sight again about 200 yards away. Art advised me to take a shot at one of them, as we might need the meat before we got back to camp. I fired at the smallest buck, and broke one of its front shoulders; but away it went, and though we hurried as fast as we

could, when we got to the place where they had been, no sign of deer could we see. However, we were now so high that there was some 6 inches of snow on the ground, and it was an easy matter to follow the wounded deer, as there was blood stain on the snow. After following the animal a hundred yards or more we suddenly came upon the tracks of thirteen caribou, and from their appearance in the snow, some of them were big fellows. Art thought we had better let the deer go and follow the caribou instead. I was loath to do this, as I hate to have anything suffer. However, since my guide thought we should follow the bunch of caribou, I agreed to do so. After climbing upward for an hour or more, the snow constantly getting deeper, we came out on top of the first range of hills, but so far had seen no caribou, though their tracks appeared to be quite fresh. Art said that if we ever came up with them I would have a chance for a record head;



*The author and skin of grizzly*

got a fire going in the rusty old camp stove, and Art asked if I was fond of roast duck. When I told him just how fond of wild duck I was, he proposed that we take our guns and go back toward the foot of the mountain, back of the cabin, where he knew of a small lake that always had many duck on it at this time of year. A tramp of a quarter of a mile or so brought us to the lake, where, sure enough, we found a great number of mallards and canvas-backs; and in a short time we had bagged all we needed for our immediate requirements. Oh boy! perhaps those duck didn't taste good, after the day's exercise in the open. It just seemed as if we would never get through eating; and I don't know when I had had so thoroughly enjoyable a meal.

Next morning we had breakfasted and cleaned up camp long before daylight; and then, loading the canoe with such supplies as we would need on our trip after caribou, we started upstream as soon as it was light

and when I asked him what made him think so, he showed me where one animal with very large footprints always had to go around any group of trees if the trees were not a considerable distance apart. He said that the reason for this was the immense spread of antlers of this big fellow, which branched out so wide that where the rest of the herd could go between the trees with ease, this animal had to detour. We kept on following the tracks until it commenced to get dark, whereupon we decided to camp for the night; so looked for a good camping site, and found one by the side of a huge rock.

We were now in about 18 inches of snow; so had to clear away a place at the side of the rock, where we built a good-sized fire. There was plenty of dry wood at hand, and we kept the fire roaring until it warmed up the side of the rock. In the meantime we had cooked and eaten our supper, and had cut and carried in a huge pile of evergreen boughs with which Art was to make our bed. When the rock was sufficiently warmed we moved our fire over a short distance, cleared away the coals and ashes, and proceeded to make our bed of green boughs close up against the warm rock. Upon the boughs we spread one half of a 7-foot square of canvas, lay down on top of it and pulled the other half over us. And boy! that bed was as soft and comfortable as springs and mattress, while the heat of the big rock kept us nice and warm all night.

We slept as soundly as if at home in bed, arose early and breakfasted before daylight. Then, as soon as it was light enough to travel, we again set out after the caribou, following their tracks all forenoon. Those boys were travelers, for they took us miles to the southwest, and down on the opposite side of the mountain below snow line. Here we were up against it, as we could no longer follow their tracks. They had been feeding and their tracks led in all directions; nor could we find the point from which they had begun traveling again; so knew not in what direction the herd was. Art thought that it would be better to return to the cabin, as our food supply was almost exhausted; so we headed up the mountain toward Fish Lake, which lay almost directly over the mountain from the cabin on Howser Creek. Art had built a small lean-to at Fish Lake the winter before when he had been trapping there, and said that we could spend the night there. We reached the lake about 3 o'clock in the afternoon, and found that someone had used a part of the cabin for fuel, which made Art so angry that he refused to remain there over night. Before leaving, however, he explained to me how the lake had been formed by a slide of limestone from the mountain top, which had dammed up the stream, forming a lake about a mile in length, at the lower end of which there were rapids of a hundred feet or more drop. The valley which the lake now occupies had originally been heavily timbered with immense cedars, and these still stood in the bottom, the tops discernible in the clear

water. Mountain trout could be seen by the dozen, some of which were of great size; but alas! we had no fishing tackle of any kind, so could not catch a mess for supper. However, I vowed then and there that if ever I had a chance to do so, I would return and catch some of those beauties.

After a short rest at the lake we began the climb to the summit, which we reached a little before dark; and while looking for a good camping site we ran across the track of the deer we had wounded the day before. We followed it for a couple of hundred yards, and then came up with it. It was lying in a small thicket, and before it could get up I shot it through the head, killing it instantly. As all the food we had left was a couple of slices of bread and a little salt, the fresh deer meat looked good, and we cut off about 25 or 30 pounds of the choicest part and placed it in our pack sacks. As it was now getting dark we looked around for a good camping site, and chose a big log at the side of a little lake. Here we built a good fire and fried some deer steak, and such a feast of deer steak as we did enjoy! We then collected a quantity of boughs and built a bed such as we had had the night before. Though we did not have our big heated rock to keep us warm, we managed to sleep well, and did not awaken till after it was broad daylight.

Building a good fire, we cooked deer meat for breakfast. It was all we had to eat, but we managed very well. We then cooked a quantity to take with us for our lunch. After making sure that the fire was out, we shouldered our packs and started down the east side of the mountain. Just before we got below snow line we came upon the tracks of a huge bear, which we followed along the mountain side, getting lower and lower all the time, until at last we were below snow line, which made it difficult to follow the tracks. A number of times we lost them, but after a careful search managed to pick them up again; until finally we came out on a rocky bench, and lost all trace of the tracks. Art was about to give up the search, when we heard a noise off to the left, and looked just in time to see a huge silver tip enter a clump of bushes about 75 yards away.

Art had told me something of the silver tip bear, and had warned me never to shoot at one unless it presented a good mark, as a wounded silver tip, or grizzly, was a nasty customer to deal with. He had told me, when we first ran across this bear's tracks, that it was a grizzly, as his claws were long, while those of the common black and brown bear are short and curved.

It was understood that in case any game was sighted I was to have the first chance to shoot, Art only to help out in case of necessity; so he motioned to me to go up the hill a short distance and get around back of the clump of bushes into which the bear had disappeared.

Holding my rifle in readiness, I climbed carefully over some loose rocks, and along the hillside, and soon was a short distance

from the brush patch that concealed the bear; but the brush was so dense that it was impossible to see whether he was still there or not, and it would not be safe to enter the brush. How I wished for a good dog! But wishing didn't bring one, so I sat down on a log and tossed small rocks into the brush to try to drive the bear out. And man of man! I sure succeeded beyond my fondest dreams. I must have hit him on the end of the nose, or some other tender spot, for he came tearing out of that brush as if looking for trouble. The first thing he spied was me, and with a savage growl he started toward me, his little piggy eyes fairly blazing with anger.

I raised my rifle and took a careful shot at where I thought the bear's heart ought to be; but I must have judged wrong, for he did not slow down, but kept right on coming. Bang! again; and this time I scored a hit that broke his right shoulder, but it also served to enrage his bearship, and he let out a roar that made my hair stand on end. He was now within about 30 feet of me, which was altogether too close for comfort. I felt like bolting down the hill, but was afraid the bear could outrun me; so stood my ground and took careful aim at his wide-open mouth, and pulled the trigger. The bear collapsed in a heap, the bullet having gone through his spine. Art hurried to the scene, and we at once got busy and skinned the bear, which was very large, and fat as butter. As I wished the hide for a rug, we took the feet and head along, which latter made quite a load, and seemed to weigh 100 pounds by the time we got it down to the canoe.

We paddled down to Howser Cabin and soon were eating the first square meal we had enjoyed since we left there two days before. Not that we had not enjoyed the meals we had partaken of on our trip, but now we had potatoes, bread, jam, ham, deer meat, tea with sugar and cream, and a number of other things that helped to make the meal one to remember. In the evening we went out and shot a few more duck, some of which we plucked, cleaned, and roasted, to take with us on our journey farther north, as we had decided to try for a caribou up near Hall Creek, some 15 miles beyond the head of navigation on the Upper Duncan.

Early next morning we headed upstream, and at noon landed at Healy's Hotel, at the head of navigation, where we rested over Sunday. Mr. Healy and his niece treated us right royally, fed us with the best they had, and helped make the time pass quickly. Miss Healy baked some bread and cake and made a couple of pies for us to take with us.

Early Monday morning we set out for Hall Creek. As there was a good pack trail all the way we reached Hall Creek Cabin in time for dinner, for which we had worked up an appetite. After dinner Art took me up the trail some distance to show me some fine timber, and we had gone only 400 or 500 yards from the cabin when we

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Conducted by L. Q. Bradley

## Park Commission Sponsors New Jersey Range

WITH the new rifle range practically completed at Nomahegan Park, in Cranford, near the Kenilworth-Springfield lines, another form of recreation much in demand will be offered to county residents in the Union County (New Jersey) park system. The site is readily accessible along the Kenilworth Boulevard, contiguous to the trap-shooting grounds that have enjoyed considerable patronage since the opening, three years ago.

A most unique feature of the rifle range's operation has been developed by placing the responsibility of the program in the hands of a committee of county citizens headed by Lieut. Col. William B. Martin, of Elizabeth, as chairman. Range rules will be suggested by this group because of the ability of its members to sense the exact requirements for such an addition to the park system.

The range has been designed solely for subcaliber shooting, and for that reason no high-powered rifles will be permitted. Every detail in regulations specified by the National Rifle Association has been taken into consideration, both in the construction of the range and plans for operation.

Safety has been the principal factor considered in construction plans, and when the range is thrown open to the public it will be as foolproof as ingenuity can make it. Big steel plates, adequate to stop any subcaliber bullet shot from the firing points, have been placed as a backstop behind ten targets. Slots have been provided at the firing points, so that every shot must strike some part of the steel plate backstop after the muzzle of the rifle has been inserted. Each position will accommodate ten riflemen at once, equivalent to the number of targets available at one time.

With all facilities at hand, suitable for expert and novice alike, the educational value of the rifle range is expected to appeal to many persons throughout this section. The scope is considered unlimited, and it is expected that many women, youths of the public schools, Y. M. C. A.'s, Boy Scouts, National Guardsmen, and the citizenry at large will make use of it. The age limit probably will be placed at 13 years.

Arrangements to build the range were made by the Union County Park Commission when appealed to repeatedly by the Union County Rifle Club, of Elizabeth, and the Summit, Plainfield, and Roselle Rifle Clubs, all affiliated with the New Jersey Rifle League. Several meetings were held at the Elizabeth Armory, and Colonel Martin was

appointed spokesman to present the issue to the park board.

Informal rifle shoots are now held by the New Jersey Rifle League at the Elizabeth Armory, where indoor facilities permit only one range of 25 yards and four targets. A pistol range of 15, 25, and 50 yards will be provided also. No rifle-firing will be permitted when the range is used by pistol marksmen.

It is the intention of the committee to develop a system of instruction, so that at a given time any novice and expert may begin at the same time and fire over a definite course. The facilities for pistol-shooting will be open for matches and regulated practice of police departments of the locality as well as other organizations and individuals.

At a recent meeting of the committee, held at the park commission's headquarters, Warrancko Park, Colonel Martin was named chairman, and F. S. Mathewson, superintendent of recreation for the park board, was made secretary and treasurer. Other members of the committee are Lee Pareis, Townley; Capt. Edgar DeRonde, Hillside; Maj. Francis V. Lowden, Roselle, and Capt. Lyman L. Parks, chief of Union County park police. The latter, because of his wide experience, will be placed in charge of pistol-shooting.

Many details of operation were discussed. In order to place the range on a self-supporting basis as are other adult recreational units of the park system, it is probable a number of rifles will be purchased for rental purposes. At the same time a nominal fee will be charged for use of the range. Regulation targets will be sold both as a convenience and for the purpose of meeting the expenses involved.

Details for the safety of target-markers have been carried out in the design of the backstops. It is possible to walk the entire distance behind the targets without danger while the range is in use. A fence will be erected along one side of the range to prevent anyone crossing in front of marksmen. The fence will reach to the entrance to the butts, as the rear of the targets is called. A field telephone will be installed to carry instruction from the firing points to the targets.

During discussions it has been discovered that there is considerable interest in marksmanship in this locality. It is intended that experienced riflemen will undertake to tutor and be responsible for various groups

(Continued on page 22)

### COMING EVENTS

(N. R. A. State Secretaries, the Secretaries of State Rifle Associations, N. R. A. Club Secretaries, and others interested are requested to notify the N. R. A. of any matches—Coming Events—that it is desired to announce in this column. Name and class of the competition, place, and date should be given.)

#### N. R. A. GALLERY MATCHES

##### GALLERY RIFLE MATCHES

Name of match	Members' entry fee	Entries close	When fired
Prone Tyro	.....	Dec. 1—December	
N.R.A. \$1—Club \$1			
Tyro Championship	.....	Dec. 1—December	
N.R.A. \$1—Club \$1			
Individual Prone	.....	Dec. 1—December	
N.R.A. \$1—Club \$1.50			
Individual Sitting	.....	Dec. 1—December	
N.R.A. \$1—Club \$1.50			
Individual Kneeling	.....	Jan. 1—January	
N.R.A. \$1—Club \$1.50			
Individual Standing	.....	Jan. 1—January	
N.R.A. \$1—Club \$1.50			
Gallery Grand Aggregate	.....	Dec. 1—December	
N.R.A. \$1—Club \$1.50			
Individual Free Rifle	.....	Jan. 1—January	
N.R.A. \$1—Club \$1.50			
Gallery Champ. (any sights)	.....	Jan. 1—January	
N.R.A. \$1—Club \$1.50			
Gallery Champ. (metallic sights)	.....	Jan. 1—January	
N.R.A. \$1—Club \$1.50			
Two-Man Team	.....	Jan. 1—January	
N.R.A. \$2—Club \$2			
Gallery Rifle Qualification	.....	Never—Any Time	
N.R.A. \$1—Club \$1.50			
American Legion Indiv. Champ.	.....	Jan. 1—January	
N.R.A. \$1—Club \$1			
American Legion Team	.....	Feb. 1—February	
N.R.A. .... Club \$5			
Tyro Team	.....	Feb. 1—February	
N.R.A. .... Club \$5			
Civilian Interclub (any sights)	.....	Feb. 1—February	
N.R.A. .... Club \$5			
Civ. Interclub (metallic sights)	.....	Feb. 1—February	
N.R.A. .... Club \$5			

#### COLLEGE AND SCHOOL MATCHES

Individual Scholastic Champ.	.....	Jan. 1—January
N.R.A. 25 cents—Club 25 cents		
Individual Collegiate Champ.	.....	Jan. 1—January
N.R.A. \$1—Club \$1.50		
Individual Military School	.....	Jan. 1—January
N.R.A. 25 cents—Club 25 cents		
Women's Indiv. Championship	.....	Jan. 1—January
N.R.A. \$1—Club \$1		
Women's Team	.....	Feb. 1—February
N.R.A. .... Club \$5		
Freshman Team	.....	Feb. 1—February
N.R.A. .... Club \$5		
Interscholastic Tyro Team	.....	Feb. 1—February
N.R.A. .... Club \$5		
Military School Team	.....	March 1—March
N.R.A. .... Club \$5		
High School Team	.....	March 1—March
N.R.A. .... Club \$5		
Girls' Interscholastic Team	.....	March 1—March
N.R.A. .... Club \$5		

#### MILITARY MATCHES

Individual Military Champ.	.....	Jan. 1—January
N.R.A. \$1—Club \$1		
Individual 22-Pistol Mil. Champ.	.....	Jan. 1—January
N.R.A. \$1—Club \$1		
Company Team Champ.	.....	Feb. 1—February
N.R.A. .... Club \$5		
Regimental Championship	.....	Feb. 1—February
N.R.A. .... Club \$5		
Company 22 Pistol Team	.....	Feb. 1—February
N.R.A. .... Club \$5		

#### PISTOL AND REVOLVER MATCHES

Tyro Slow Fire	.....	Dec. 1—December
N.R.A. \$1—Club \$1		
Tyro Rapid Fire	.....	Dec. 1—December
N.R.A. \$1—Club \$1		
Individual Slow Fire	.....	Dec. 1—December
N.R.A. \$1—Club \$1.50		
Individual Timed Fire	.....	Dec. 1—December
N.R.A. \$1—Club \$1.50		
Individual Rapid Fire	.....	Jan. 1—January
N.R.A. \$1—Club \$1.50		
22 Slow-Fire Pistol	.....	Jan. 1—January
N.R.A. \$1—Club \$1.50		
Free Pistol	.....	Jan. 1—January
N.R.A. \$1—Club \$1.50		
Individual Pistol Champ.	.....	Jan. 1—January
N.R.A. \$1—Club \$1.50		
Police Individual Champ.	.....	Jan. 1—January
N.R.A. \$1—Club \$1		
Pistol Qualification	.....	Never—Any Time
N.R.A. \$1—Club \$1.50		
Police Team Champ.	.....	Feb. 1—February
N.R.A. .... Club \$5		
Pistol Team Champ.	.....	Feb. 1—February
N.R.A. .... Club \$5		



## PARK COMMISSION SPONSORS NEW JERSEY RANGE

(Continued from page 21)

using the range. All military units, independent rifle clubs, and groups of individuals will have a committeeman as a mentor.

Colonel Martin's ability as a rifleman is well known. He was a member of the United States Palma Team in 1912 that made a new world record against the British and Canadian teams at Ottawa and was distinguished as a member of the United States Olympic Team that won the championships in 1908. He won the military championship of the United States in 1909.

The range will be thrown open to the public early in the spring. In the meantime members of the committee will try out all firing points, so that recommendations for improvement may be made in ample time. It is expected that novices of the vicinity will avail themselves readily of the advice and tutelage of many expert shots of hereabouts who have offered their services in the hope of promoting their own favorite diversion.

## OLYMPIC CLUB NOSED OUT BY INFANTRY TEAM

THE 30th Infantry Rifle Team No. 1 had a good day on October 20, when, in competition with eleven other six-man teams firing the Army A qualification course, it made a clean-up of the team trophies offered at the annual match conducted by the Northern California Rifle and Pistol Association at Oakland, Calif. The 30th has competed for these trophies before, but this year marks the first time that any one of them has ever been added to the collection in the regimental trophy case.

That the victory was hard won is attested by the fact that while the 30th finished with 1,961 x 2,100, the Olympic Club, of San Francisco, was only one point behind with 1,960 x 2,100. Individual honors went to two members of the Olympic Club, Mr. Henry Adams with 340 taking first place, and Mr. Lloyd Mehegan a close second with 339. The 30th Infantry Team No. 2 was third among the teams with 1,888; Golden Gate Rifle Club and the team from San Luis Obispo finished fourth and fifth, respectively.

Corpl. Frank Mitko led the 30th in scoring, with 335, which was good enough to give him third place for individual honors, and his score of 149 at the three rapid-fire ranges gave him a tie with Mr. Henry Adams, of the Olympic Club, for the high individual score at rapid fire. First Sgt. John Stofko, a member of the victorious Infantry Rifle Team of this year, finished one point behind Corporal Mitko, and the other members of the 30th Infantry Team No. 1 finished as follows: Corpl. George Oiler, 328; Corpl. Patrick J. Canavan, 325; Pvt. Henry Bailey, 321; and Sgt. James R. Booth, 318. The team average was 326.8.

The trophies won by the 30th Infantry were: the California Rifle and Pistol Club Association Trophy for the Northern California Club Team Championship; the 30th Infantry Cup for the best team score at the

short ranges; the Golden Gate Club Cup for the highest team score at rapid fire; and the Olympic Club Cup for the high team total at mid-ranges. Particularly gratifying was the fact that the regiment captured the 30th Infantry Cup, which was first offered by the regiment in 1922, but which has never before been won by the 30th.

This impressive victory of the 30th's rifle team, following so closely upon the heels of the recent victory of the pistol team in the match held at Capitola, Calif., where they captured the much-sought McQuaide Trophy after a hard fight with the 250th Coast Artillery (California National Guard) and other Service teams, has greatly stimulated interest in shooting on the part of the entire regimental personnel, and Col. Fred R. Brown, commanding, feels that the fine work of the rifle and pistol teams, both of which were coached by 1st Lieut. C. B. Mickelwaite, is going to have a lot to do with making this year a banner shooting year for the regiment.

## INTERNATIONAL TEAM CONTRIBUTIONS

Amount of contributions previously received	\$436.25
Texas Civilian Rifle Team	20.65
E. DeK. Leffingwell, Whittier, Calif.	15.28
Thomas F. Cobbs, Santa Barbara, Calif.	5.00
A. B. Proctor, New York City, N. Y.	3.00
Shell B. Sawyer, Coudersport, Pa.	2.00
L. L. Albert, Bayonne, N. J.	1.00
F. J. Sage, New Canaan, Conn.	1.00
L. S. Sanders, Yuma, Ariz.	1.00
Milton Ostner, Loring, Alaska	1.00

Total ..... \$486.13

## ANOTHER VETERAN PASSES

COL. HENRY T. CLARK, 90, life member of the N. R. A., a member of the famous United States International Rifle Team of 1880, and one of the country's oldest and best-known dentists, passed away in a Poughkeepsie, N. Y., hospital on September 22. His death was due to a severe stroke, aggravated by his age, and followed by a cerebral hemorrhage.

The death of Colonel Clark brought to a close one of the most pronounced careers in the history of Dutchess County, New York. Ranked with the greatest all-time long-distance rifle experts in the world, his brilliant marksmanship career was culminated with the firing of the Long-Range Championship of the World at Dollymount, Ireland, in 1880. Colonel Clark was a shooting member of the victorious United States Team in that year, and his excellent performance, particularly at the 900-yard stage, was the topic of international promulgation. Besides his international and national accomplishments in rifle marksmanship, Colonel Clark held the distinction of having been among the first winners of the Leech Cup classic. In 1882, on occasion of the eighth annual competition, he was successful in winning the now famous Leech Trophy.

While his record as a marksman overshadowed his military career, the Colonel possessed a keen knowledge of military science and tactics, which brought about his promotion to lieutenant colonel in 1876. He subsequently resigned this commission in order to devote more time to rifle practice, but in 1886 he was reinstated at the rank of colonel on the special order of Governor Hill, then

Governor of New York. During that year, Colonel Clark took a company to Europe in the interest of exploiting his scientific dentistry inventions.

In this connection, his research contributions to the field of dentistry, coupled with his sixty-six years of active practice, caused him to be regarded in his profession with the same respect and devotion that fellow members of the shooting fraternity always hailed him.

Colonel Clark is survived by two daughters, Mrs. Annie Clark Graves, of Watertown, N. Y., and another daughter who resides in Ohio.

The Association feels the loss of this veteran of the shooting game, and on behalf of both its officers and members joins Colonel Clark's host of friends in extending heartfelt sympathy to surviving members of his household.

## CALIFORNIA RIFLE AND PISTOL ASSOCIATION MATCHES

THE annual competition matches of the California Rifle and Pistol Association were held on the Leona range on Sunday, October 20. These matches, culmination of the rifle-men's year, toward which all practice shoots during the year are designed, serve to bring together the riflemen from all over the northern part of the State and bring out competition of the very keenest. California has, for a number of years past, turned out some of the finest civilian riflemen to be found in the country—in fact, there have been very few occasions at the National Matches when the team of the California Rifle and Pistol Association has not been at the head of the list of civilian teams.

Many of the members of the teams which competed at Leona last Sunday had recently returned from the National Matches at Camp Perry, where they gave a very creditable account of themselves.

The principal team match of this shoot was for the 30th Infantry Team Cup, a trophy offered by the 30th Infantry some nine years ago, which was won at that time by a member team of the California Rifle and Pistol Association and has been in civilian hands ever since. The 30th Infantry, to bring back their cup, had a squad of more than two teams practice at the Leona range for several weeks before the match, and the result of such practice was shown in a very close score between the 30th Infantry's first team and the Olympic Club, the match being won by a margin of one point. The 30th Infantry, because of this margin, took the following prizes: Northern California Club team championship, the Association trophy; Short-Range Championship, the 30th Infantry Cup; Rapid-Fire Championship, Golden Gate Club Cup; Mid-Range Championship, Olympic Club Cup.

Scores of all clubs that competed are (1) 30th Infantry, 1,961; (2) Olympic Club, 1,960; (3) 2nd 30th Infantry Team, 1,888; (4) Golden Gate Club, 1,862; (5) San Luis Obispo Club, 1,857; (6) Golden Gate Club, 2nd Team, 1,821; (7) Chowchilla Club, 1,789; (8) 159th Infantry, 1,738; (9) Melrose Rifle Club, 1,759; (10) Richmond Rifle

Club, 1,724; (11) Foothill Rifle Club, 1,644; (12) Telephone Rifle Club, 1,603.

#### INDIVIDUAL RIFLE CHAMPIONSHIP

First, \$5, Henry Adams, Olympic Club; second, \$3, Lloyd Mehegan, Golden Gate Club; third, \$2, Lieutenant Mitko, 30th Infantry; offhand, \$2, Lieutenant Mitko, 30th Infantry; rapid fire, \$2 (tie), Mitko and Adams, \$1 each; mid-range, \$2, Henry Adams, Olympic Club.

#### ALABAMA STATE SHOOT WAS AT 300 YARDS

THE Alabama State Championship Match was shot at 300 yards—target A for slow fire, D target for rapid—instead of at 200 yards, Target A, as reported in the October issue.

#### UNCLAIMED CAMP PERRY CHECKS AND MEDALS

UNCLAIMED competition medals and cash prize checks are being held at National Headquarters for the following named competitors. Upon receipt of correct mailing addresses, the prizes will be promptly forwarded:

##### MEDALS

W. C. Haack, N. R. A. Grand Aggregate.  
J. McWillie, N. R. A. Grand Aggregate.  
C. L. Dier, Scott Match.  
K. B. Schaffer, Small-Bore Free-Rifle.

##### PRIZE-CHECKS

B. Burnett, President's.  
W. C. Tan, Any-Rifle Championship.  
J. P. Schaffer, Small-Bore Free-Rifle.  
J. D. Lowrey, Rapid-Fire Pistol Re-Entry.  
W. O. R. Calkins, Rapid-Fire and Timed-Fire Pistol Re-Entry.  
J. D. Basley, Rapid-Fire and Timed-Fire Pistol Re-Entry.  
D. Fenton, Wright.  
F. Platt, Leech and Navy.

#### ST. PAUL MUNICIPAL CLUB MAKES RAPID PROGRESS

ST. PAUL (Minn.) Municipal Rifle and Pistol Club began its activities early in the spring. The Department of Playgrounds and Recreation got busy and obtained the services of Maj. J. L. Lewis and Col. R. E. Cotton, who gave instruction in the proper handling of arms and the conduct of target practice.

At the announcement of the intention to organize, more than 60 people turned out for the first meeting, which was held in the Courthouse in St. Paul. Many of the members were girls who were eager to find out all about firearms and their use. Following this were a few lessons at the St. Paul Armory. Sgt. John Hughes, Sgt. Norman Curtis, and Sgt. Roy Deering, assisting Major Lewis and Colonel Cotton, each took a group of the 65 members present and gave them proper position instruction.

The next lesson was in sighting, trigger-squeeze, and shooting triangles. Subsequent lessons in safety and cleaning of arms also proved both helpful and interesting.

Following completion of these very valuable lessons, arrangements were made with the armory to use their indoor .22 range, and

over 40 members participated in the first shoot. Some amazing scores were made, especially by our ladies.

Negotiations were later begun with authorities at Fort Snelling, Minn., for the use of the outdoor range. These arrangements being successful, the next step was to affiliate with the National Rifle Association and obtain the War Department issue of arms and ammunition. The Director of Civilian Marksmanship responded promptly to our needs, and we were furnished two .30-06 Springfield Service rifles and two .22-caliber Springfield rifles.

The first practice was held on the .22 range with about 25 members present. The second was then on the big range with about the same number of members present. The club has been holding their practice matches always on Sunday on the large range with the .30-06-caliber rifle, and the following week on Saturday on the small-bore range with the .22 rifle. The attendance at all of these matches was approximately 30.

Toward the close of the outdoor season, a competitive match on the big range was arranged with the Norwegian American Rifle Club of Minneapolis. Each club picked its ten best marksmen for the contest. The St. Paul Club won the match by one point. The course of fire was 10 shots offhand and 10 sitting. There were no special prizes awarded for this match, but the spirit among the members of both clubs was fine, and the St. Paul Club is eager to meet the Norwegian Club in more matches in the future.

As the cold weather is setting in very quickly in our region, the St. Paul Club arranged a final match for the outdoor season, known as the "President's Match." This match was held on October 27 at the Fort Snelling range. Thirty members participated and were classified as follows: Class A men, who have a record average of 75 per cent or over; Class B men, averaging below 75 per cent; Class C, without an established average and new members; and the Ladies' Class, regardless of average.

The course for the President's Match was 5 shots offhand, 5 kneeling, 5 sitting, and 5 prone on the 200-yard range, and was selected by the president of the club. The President's trophy was awarded to Maj. J. L. Lewis on his score of 92, the highest of the day. Class A first place was awarded to Major Lewis on his high score; second place was won by Bert Schilling and Sergeant Hughes. Merchandise prizes were provided for these places; also for third places, which were won by Peter Kiwus and Max Sedro.

Class B was won by George W. Paine with 84 points; second place by Floyd Benson; third by Chris Ackerman; fourth by Paul Brown, William Bray, and Herman Schleicher; fifth by J. E. Sharkey.

In Class C, first place was won by William Shay with 83 points; second place by Kenneth Mueller. This class was also awarded merchandise prizes.

In the Ladies' Class, first place was won by Miss Beatrice Lyon, who was awarded a small silver cup. The next four received merchandise prizes. They were: Dorothy

Stewart, Angeline Panushka, Elizabeth Haglund, and Mrs. Kenneth Mueller.

Social activities of the club are also being promoted, and it is expected that the club will have a very lively and good time during the coming season.

The officers of our club are Mr. Frank Drassal, president; Miss Violet Hill, vice president; Miss Dorothy Stewart, secretary-treasurer; Maj. J. L. Lewis, executive officer. The annual election of officers will be held at the December meeting.

#### REMINGTON CLUB MATCHES GO OVER BIG!

##### By "RABBIT"

THE Second Annual Small-Bore Rifle and Pistol Matches of the Remington Arms Rifle and Gun Club, which were postponed on account of rain last August, were held on Saturday and Sunday, October 10 and 11, and brought out some of the most phenomenal scores ever shot over a 50- and 100-yard course.

The Grand Aggregate was won by George E. Wilkinson, of Bridgeport, Conn., with a score of 789 x 800. He was presented with a beautiful Victory Trophy, presented by the Remington Arms Club, Inc., to be held by him for one year with his name and score inscribed thereon.

Charles Neary, of the Remington Arms Club, in the 50-100-Yard Telescopic Match, came through with a possible at each range to win this match by a good margin.

#### 50-100-YARD TELESCOPIC MATCH, 17 ENTRIES

	Score	Prize
C. Neary	400	\$20 in gold
F. Kahn	396	10 in gold
G. E. Wilkinson	396	5 in cash
E. Johnson	396	2 in cash
F. W. Rogers	396	2 in cash
Geo. B. Sheldon	395	2 in cash
Robert Nisbet	395	2 in cash
H. J. Gussman	394	2 in cash
J. F. Rivers	393	
L. E. White	390	5 special

L. E. White, of Plantsville, Conn., won the 50-100-Yard Iron-Sight Match by an excellent score of 396 x 400.

#### 50-100-YARD IRON-SIGHT MATCH, 17 ENTRIES

	Score	Prize
L. E. White	396	\$5 special
E. C. Korten	393	15 in gold
G. E. Wilkinson	393	10 in gold
J. F. Rivers	392	5 in gold
J. A. Noxan	392	2 in cash
F. W. Rogers	392	2 in cash
Robert Nisbet	391	2 in cash
E. Johnson	390	2 in cash

Eric Johnson, of New Haven, Conn., won the Remington Arms Club 50-Yard Special Handicap Match, which was shot on the regular 25-yard indoor target scoring 195 x 200, 6 points ahead of his nearest competitor.

#### REMINGTON ARMS CLUB SPECIAL HANDICAP MATCH, 50 YARDS, 11 ENTRIES

	Score	Prize
Eric Johnson	199	\$10 in gold
Robert Nisbet	199	5 in gold
Geo. B. Sheldon	199	3 in cash
E. C. Korten	199	3 in cash
L. J. Weatherall	198	3 in cash
J. F. Rivers	197	2 in cash
J. A. Noxan	197	2 in cash
C. Neary	191	2 in cash
A. G. Vall	191	2 in cash
G. E. Wilkinson	191	2 in cash
M. Kemmerer	187	

In the 50-Yard Re-Entry Matches, best  
(Continued on page 26)



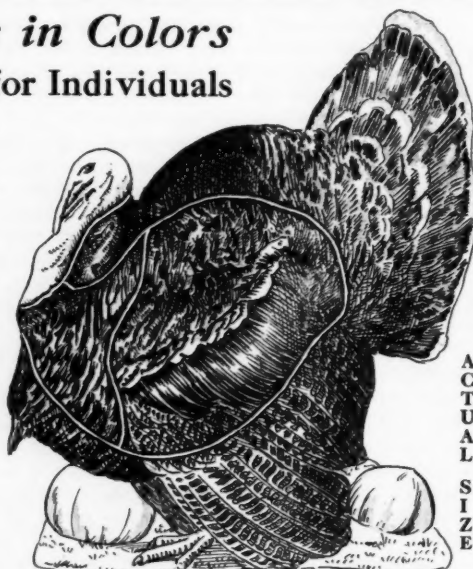
# To the "Old-Timer" and the "Newcomer"— Acquaint Yourself With Our Many

## Turkey Targets in Colors

N. R. A. Turkey Targets for Individuals and Club Shoots. Five Turkeys on a Target, Printed in Three Colors with Miniature Turkey, Showing Value of Hits and Penalty Shots.

25 (Minimum) .....	\$1.00
100 .....	3.00
500 .....	12.50

Orders Forwarded, Parcel Post  
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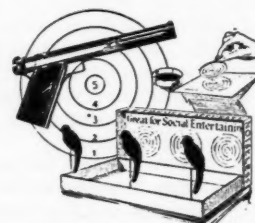
## Ideal Christmas

AMERICAN RIFLEMAN BINDER



Green Buckram with N. R. A. seal. Holds 12 issues.

## BULL'S-EYE PISTOL



A box of fun with all accuracy on a rubber-banded target. Box contains target of the and making small targets. A daily present grows up. Each



(ACTUAL SIZE)

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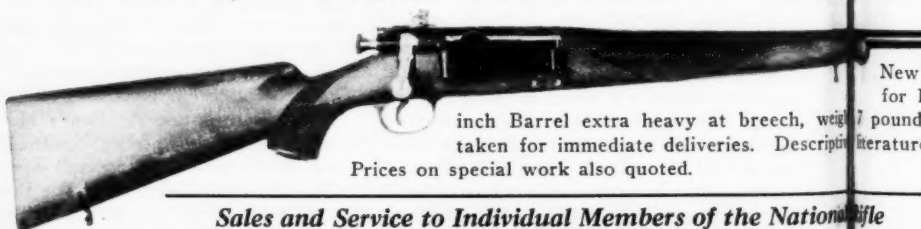
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## Give Yourself a Christmas Present to

Let the N. R. A. Service Company and Sedgley restock your old rifle in good quality quality English Walnut for \$37.50. Barrel and all metal parts completely

Work on stocks and barrels guaranteed by Sedgley and The Service

N. R. A. Service Company Stocks for Krag, Springfield and Ma



New for 1 inch Barrel extra heavy at breech, weight 7 pound

taken for immediate deliveries. Descriptive literature

Prices on special work also quoted.

Sales and Service to Individual Members of the National Rifle Association and Affiliated Clubs.



Black Leather. Stamped with N. R. A. Seal. \$3.00 each.



Hand-Tooled Leather (hand-laced), N. R. A. Seal Hand-tooled. \$6.00 each.

FOR NEW OR OLD CURRENCY (specify which)

# N. R. A. SERVICE CO., Inc.

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# We Extend the "Greetings" of the Season Many "Special" Offerings To You

## Christmas Suggestions for All!!!

### AMERICAN RIFLEMAN BINDERS



A. seal binds 12 issues ---- \$1.75

### ISTOL

A bag of fun, combined with accuracy. Works on rubber-band arrangements No. 6 chilled shot. Box contains toy birds, bag of shot and facilities for making small targets.

A day present for kids or grownups. Each ---- \$2.70

### TROPHY SPOONS

Sterling silver with N. R. A. seal on handle

Each	-----	\$2.00
½ dozen	-----	10.00
1 dozen	-----	18.00

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in good quality walnut for \$27.50 or in extra  
parts completely re-blued \$6.50 extra.  
and The Service Company.

field and Model 54 Winchester.

New "Service Company" Stock  
for Krag, made by Sedgley, 26-  
pounds 15 ounces. Orders now  
descriptive literature and price list on request.

Targets, Rifles,  
Pistols,  
Ammunition,  
Cleaning Supplies,  
etc., will be found  
in the  
New Price List

## N. R. A. Christmas Cards

Steel Engraved Cards—Specially  
Designed for N. R. A. Members,  
With Verse.

Engraving of "The Turkey Shoot"



25 (Minimum) Boxed, with Envelopes	-----	\$2.50
50 Boxed, with Envelopes	-----	4.75
100 Boxed, with Envelopes	-----	8.50

## N. R. A. Christmas Card Folders

Same plate as above, but with verse on inside of  
folder. Envelopes included.

25 (Minimum) Boxed	-----	\$3.75
50 Boxed	-----	7.00
100 Boxed	-----	12.00

## EXTRA QUALITY CARRYING CASES



For Springfield Service, Sporter, .22-caliber M1, or Win-  
chester 52 (specify which) ----- \$4.00  
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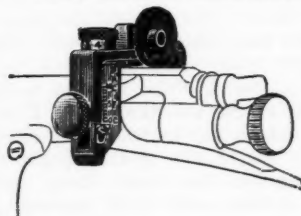
Winchester Rifle, bolt action, caliber .22 long rifle,  
Model 52, \$36. 5-shot magazine, 28-inch barrel, weight  
8½ pounds, folding leaf micrometer rear sight, blade  
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place on barrel. (Improved Model.)



LYMAN FRONT-SIGHT  
RAMP  
(As Illustrated)

For Krag, Russian, and Springfield Rifles,  
\$4.50.

## PERFECTION MICROMETER REAR SIGHT



for all Krag  
Rifles. Can  
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Complete, \$5.50

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## REMINGTON CLUB MATCHES GO OVER BIG

(Continued from page 23)

five targets to count, there were five possible ties, 500 x 500, Eric Johnson winning the match with 48 V's, Robert Nisbet 39 V's, F. W. Rogers 38 V's, H. J. Gussman 37 V's, and F. O. Kuhn 36 V's. There were 60 possible scores made out of a total of 168 targets fired. Eric Johnson not only won this match but made the best showing of the shoot by making 10 consecutive possibles, 3 of which were all perfect V's. That boy sure can "hold and squeeze 'em," and I don't mean perhaps!

### 50-YARD RE-ENTRY RIFLE, 18 ENTRIES

	Score	Prize
Eric Johnson .....	500	Cup
Robert Nisbet .....	500	Merchandise
F. W. Rogers .....	500	Merchandise
H. J. Gussman .....	500	Merchandise
F. O. Kuhn .....	500	Merchandise
S. A. Colburne .....	499	Merchandise

The 20- and 50-Yard Rapid- and Slow-Fire Pistol Match was won by H. M. Webster, of Hartford, Conn., with a score of 172 x 200. This match was shot in a gale of wind Sunday afternoon. How this brave little band of handgun enthusiasts were able to stay on the target is a mystery.

The 20-Yard Re-Entry Pistol Match was won by Joseph F. Rivers, of Greenwich, Conn. Mr. Rivers also won a special prize of \$5 in gold for the best possible. This match called for the best three targets to count.

In the Skeet shooting events there were a large number of entries, and the traps were busy at all times. In Class A, first place went to A. L. Weatherhead, of Willimantic, Conn., with a score of 47 x 50; second place to A. Chapman, of Westerly, R. I., with 46 x 50; and third to W. Thompson, of Bridgeport, Conn., score 46 x 50. Class B was won by George Pistey, of Bridgeport, Conn., with a score of 40 x 50. Geo. J. Porter, of Bridgeport, Conn., topped Class C with 36 x 50, while A. L. Weatherhead, with the excellent score of 24 x 25, won individual honors for the high single string.

These matches were a huge success, and they are destined to be greater year after year. Much credit is due to the good work on the part of Mr. A. B. Gully, who is president and treasurer of the Remington Arms Rifle and Gun Club. Great credit is also due to the able assistance rendered by Mr. Gully's daughters, who handled the entries in a most capable manner. Not a kick or a squawk was heard in connection with the entries and squadding. Moreover, a whole lot of credit should go to F. O. Kuhn, Charles Neary, and several other members of the Remington Club, whose names the writer failed to get, in connection with the scoring of the great number of targets that were shot.

## THREE STATES REPRESENTED IN WANNALANCIT CLUB SHOOT

WHAT promises to be the beginning of an annual sectional tournament, rivaling in attendance the historical Sea Girt and Northwestern Regional shoots, was predicted for the Wannalancit (Lowell, Mass.) Rifle Club's

Annual Matches following the successful shoot held on the Massabesic range near Manchester, N. H., October 12 last. Teams from Maine, New Hampshire, and Massachusetts were present this year.

The 3rd Battalion, Headquarters Company, 182nd Infantry, Massachusetts National Guard, with a score of 530, won the club cup, while Burke and Warner, shooting members of the winning team, copped both individual prizes with scores of 91 and 90, respectively.

The Club Revolver Trophy went to the Springfield (Mass.) Revolver Club on a score of 571. Robertson, of the Reading Rifle and Revolver Club, turned in a possible 100 to win individual pistol honors; Westcott, of Springfield, was second with 99.

Because the shoot was attended by teams from various parts of New England, keen rivalry and more than ordinary interest was displayed.

R. S. Warren, secretary of the Wannalancit Club, sponsors of the competition, in commenting on the match expressed particular satisfaction over the attendance of two teams from the State of Maine, and another from the Connecticut River Valley. Mr. Warren predicted that next year and in future years this annual club shoot will be better attended, because plans for holding the match are to be worked out well in advance and without conflict with other sectional matches.

The shoot was made possible through the courteous action of Col. C. W. Howard, Adjutant General of New Hampshire, who gave the use of the Massabesic range, while the success of the matches was largely due to the good work of Gen. G. W. Pearson, J. T. Putnam, F. Hall, and Charles Daugherty, officers of the competition. Scores follow:

Headquarters Co., 3rd Battalion, 182nd Inf., Melrose, Mass.:

	200 yds. stdg.	300 yds. stdg.	800 yds. stdg.	Tot.
Burke .....	45	45	45	91
Sullivan .....	46	43	45	88
Warner .....	45	45	45	90
Lukens .....	40	45	45	85
Brown .....	43	45	45	88
Lopresti .....	41	47	45	88

Arlington Rifle Club, Arlington, Mass. ....	530
Co. L, 182nd Inf., Malden, Mass. ....	514
Co. I, 3rd Batta., 372nd Inf., Boston, Mass. ....	509
Reading Rifle and Revolver Club, Reading, Mass. ....	499
Service Co., 103rd Inf., Portland, Me. ....	491
Co. D, 182nd Inf., Lowell, Mass. ....	476
Wannalancit Rifle Club, Lowell, Mass. ....	442
172nd Field Artillery, Manchester (N. H.) .....	380
Team 1 .....	380
Service Battery, 172nd Field Artillery, Manchester (N. H.), Team 2 .....	300

Team Prize, Club Rifle Cup won by Headquarters Co., 3rd Battalion, 182nd Inf., score, 530.	
High Individual, First Prize Cup won by Burke, Headquarters Co., 3rd Battalion, 182nd Inf., score, 91.	
Second High Individual, Second Prize Cup won by Warner, Headquarters Co., 3rd Battalion, 182nd Inf., score, 90.	

### REVOLVER AND PISTOL TEAMS

Springfield Revolver Club, Springfield, Mass.:	
Sherman .....	97
Westcott .....	99
Huntington .....	97
Keyes .....	96
Weeks .....	93
Dubia .....	89

Reading Rifle and Revolver Club, Reading, Mass. ....	571
Battery C, 101st Field Artillery, Boston (Mass.), Team 1 .....	550
Battery C, 101st Field Artillery, Boston (Mass.), Team 2 .....	456
Co. L, 182nd Infantry, Malden, Mass. ....	538
Service Co., 103rd Inf., Portland, Me. ....	537

Arlington Rifle Club, Arlington, Mass. ....	536
Co. D, 182nd Inf., Lowell, Mass. ....	536
Headquarters Co., 103rd Inf., Auburn, Me. ....	429
Battery A, 197th Coast Artillery, Concord, N.H. ....	426
Service Battery, 172nd Artillery, Manchester, N. H. ....	419
Service Battery, 172nd Field Artillery, Manchester, N. H. ....	402
Team Prize, Club Revolver or Pistol Cup won by Springfield Revolver Club, score, 571.	
Highest Individual, 1st Prize Cup, won by Robertson, of Reading Rifle and Revolver Club, score, 100.	
Second Highest Individual, second Prize Cup, won by Westcott, of Springfield Revolver Club, score, 90.	

## CHALLENGE

WHITE PLAINS (N. Y.) RIFLE CLUB, Morton Solomon, secretary, 253 Old Mamaroneck Road, White Plains, N. Y., wishes to arrange rifle matches at 50 feet and pistol matches at 20 or 25 yards indoors. Teams of five, N. R. A. rules and targets. Any course of fire. Challenges invited.

## AKRON COPS BOSTON HILLS TROPHY FOR KEEPS

By A. J. DICKERSON

THE Boston Hills Trophy is retired. It happened at Sunrise range near Canton, Ohio, Sunday, October 27. Akron Rifle Club met three good teams worthy of their steel and by way of that never-say-die spirit, won the trophy for the third consecutive time, making it their permanent property.

Akron was licked all the way to the 600-yard point; but they fought. Not one shot of the 192 that were fired was let off. Each had the best of the shooter and his coach behind it. One Akron Team member standing near the pavement was knocked down by a passing car. His first thought was fear that word of the accident would reach Smith, then firing at 600 for Akron. Smitty was wind-up man and left the firing point in tears because his score was not as good as he had hoped for. Petty, out of training for a long time, tried oh! so hard and came through with a useful score. Hart had bad luck and hooked a five on the wrong target. That put him in a hole, and he fought out of that hole in fine style. Fullerton hung up the high score. What a match shooter he is! Never ruffled—he just grins and holds 'em and squeezes 'em. Canny performed in his usual brilliant style and was near the top when the scores were counted. He coached the rapid-fire stages, and saved points. Coaching was surrendered to Hart at 600. The wind was high, and he was thought to be the most experienced wind dooper of the bunch.

It was at 600, that hardest stage of all to gain points, that the match was won. Fours didn't look so bad to our opponents, but we just had to have 5's, and the boys delivered. There were just 4 points over, 3 more than were necessary to win.

That match added glory to the honorable name of the old Akron Rifle Club. Never was a team and its fellow club members who came out to help by their presence and encouragement any more closely welded into one fighting unit. Our hats are off to all you boys—every one of you. Not because you won, but because you fought the fight that won.

### 38TH INFANTRY OUTDOOR RIFLE COMPETITION

RIFLE INDIVIDUAL MATCH—200 AND 600 YARDS  
SLOW; 200 AND 300 RAPID

Prizes—Gold, silver, and bronze medals or bars to first, second, and third places, respectively; \$5, \$4, \$3, and \$2.50 to first, second, third, and fourth places, respectively; \$1 each for fifth to tenth places.

	Total
1. Gerard, John E., Pvt., Co. L	179
2. McNair, James R., Sgt., Co. E	178
3. Shedlebower, L. X., Cpl., Co. K	177
4. Johnson, Axel, Cpl., Co. L	176
5. Hensley, Nealy C., Sgt., Co. K	174
6. Norris, Obie D., Pfc., Ser.	173
7. Evans, James W., Sgt., Co. E	172
8. Kraus, Cortlandt, 1st Lt., Co. I	171
9. Kraus, B. F., 1st Sgt., Co. I	171
10. Cobbler, S. G., Cpl., Co. I	170
11. Robertson, J. H., Sgt., Co. I	169
12. Hurd, Robert C., Sgt., Co. E	169
13. Kotlarчук, Wm., Pvt., Co. F	169
14. Kapple, Frank, Pvt., Co. F	168
15. Greene, H. F., 1st Lt., Co. E	168
16. Green, Willie, Cpl., Co. E	168
17. Simmons, Lindsey, Cpl., Co. E	168
18. Morrissey, M. A., Pfc., Co. K	167
19. Johnson, Leroy F., 1st Sgt., Ser.	166
20. Scherman, Adam, Cpl., Co. E	165
21. Grinstead, J. B., 1st Lt., Co. F	165
22. Kenney, A. A., Sgt., Co. K	165
23. Sheehan, T. F., Pvt., Co. I	164
24. Livingston, T. M., Pfc., Co. L	164
25. Dukes, James A., Pvt., Co. K	163
26. Harshner, H. H., Pvt., Co. L	163
27. Kelling, A. A., Pfc., Co. L	163
28. Anderson, C. P., Sgt., Co. L	162
29. Wolfer, Math., Pfc., Ser.	161
30. Stone, Clarence, I., Pfc., Co. E	161
31. Bales, James A., Sgt., Co. F	161
32. Cederholm, F. H., Cpl., Co. F	160
33. Mortenson, Wm. C., Pvt., Co. F	160
34. Glenn, James B., Pfc., Co. F	159
35. Folio, French, Cpl., Co. L	159
36. Jameson, Wm. W., Cpl., Co. I	157
37. Jordan, Harry E., Pvt., Co. L	157
38. Black, Vernon M., Pfc., Co. I	156
39. Smith, John, Pfc., Co. L	155
40. Lee, Willie L., Pvt., Co. F	151

#### RIFLE TEAM MATCH—(SAME COURSE AS INDIVIDUAL MATCH)

To the winning team a perpetual challenge trophy and bronze medals or bars to team members.

	Total
First, Company K:	
1. Kenney, A. A., Sgt.	176
2. Morrissey, M. H., Pfc.	172
3. Wilson, H. H., Pfc.	172
4. Shedlebower, L. X., Cpl.	180
5. Hamblen, B., Pvt.	169
6. Hensley, N. C., Sgt.	168
	1,037
Second, Company E	1,023
Third, Company L	1,030
Fourth, Service Company	997
Fifth, Company I	994
Sixth, Company F	980

### SOLDIERS WIN IN THREE-CORNERED PISTOL MATCH

ON NOVEMBER 2 a three-cornered pistol-team match was fired on the range of the White Plains Rifle Club, of White Plains, N. Y. Teams representing Troop K of the N. Y. State Police, the Roosevelt Rifle Club of New York City, and the White Plains Rifle Club participated in the match. The course consisted of 10 shots slow fire at 25 yards, 10 shots slow fire at 50 yards, and two strings of 5 shots in 15 seconds at 25 yards, Standard American target.

The Roosevelt Team led throughout the two slow-fire stages but fell back at the rapid-fire stage, where their score was beaten by both the troopers and the White Plains teams. Steady shooting by the troopers at all stages gave them the match with 17 points to spare.

This was the first match to be fired by the White Plains Club, which was organized just recently. Incidentally the White Plains Team was made up of five reserve officers, one of whom, Lieut. L. D. LeMan, had high individual score for the match. Lieutenant Solomon was range officer and Lieutenant Turner statistical officer. The scores follow:

#### Troop K:

Trooper Munson	232
Trooper Stark	231
Sergeant Bock	222
Trooper Burke	217
Trooper Lawson	195

Total 1,097

#### Roosevelt Rifle Club:

C. Guldner	241
J. M. Hilborn	239
J. Rivers	208
G. Bergman	202
W. Guldner	190

Total 1,080

#### White Plains Rifle Club:

Lieut. L. D. LeMan	242
Lieut. I. W. Turner	217
Lieut. Morton Solomon	188
Lieut. H. T. Noyes	187
Lieut. W. W. Brotherton	176

Total 1,012

### ANOTHER SUCCESSFUL TURKEY SHOOT

OVER 200 people, 95 of whom participated in the matches, attended the First Annual Turkey Shoot of the Roosevelt Rifle Club (Detroit), held Sunday, October 20, on the C. M. Gettys farm, Eleven-Mile and Evergreen roads, near Detroit. In the rear of the firing line is a slow winding creek bordered on both sides by old and stately willows, the range itself in a hollow; and fronting the shooters, serving as a bullet stop, a gently rising slope.

The prizes were five turkeys, twenty chickens, and ten hams. A relay of men fired for each prize—ten men on the chickens and fifteen on the turkeys and hams. The best shot of each relay took the prize. The range was 25 yards, offhand position, 75-foot standard small-bore target, having a sighting bull of 1 7/8 inches, the 10-ring being 5/16 inch. Needless to say, it took some mighty good holding to get into the 9- or 10-ring, and some of the prizes were won on 9's.

From the reaction to the invitations—and about 450 of them were scattered—a large attendance was assured; however, it was going to be up to the weather to either make or break the affair. Fortunately it turned out well. There was a slight 9 o'clock wind, dying down to almost nothing at times, and inasmuch as a competitor had only one shot to fire and no time limit, he could wait for a quiet spell. The one-shot idea proved to be the right thing. It encouraged the less-experienced marksman and gave him a chance in fast company. The first turkey was knocked down by a competitor of slightly negative proficiency. (He won't mind my saying that.) Of course, this man would not have had a chance against a 10-shot string fired by an expert. It was noted with much satisfaction that a good many of the prizes went to the lesser lights. In that respect the club has done a real service.

The shoot got under way at 10 a. m. The start was slow. There was some slight difficulty in getting the ten tickets on the first chicken sold, but after a few relays it was not a matter of selling tickets but of keeping proper track of the quarters and halves that were being poured in on the officers from all sides. The gambling instinct (or whatever motive it is that makes men act like that) was aroused, and the enthusiasm knew no bounds. While one relay was firing, the next two were already sold out.

By 4 p. m. thirty-three relays had been

run and nothing was left but two Swift Premium hams. Somebody suggested a match for the ladies. No sooner said than done. Frances Rolston won the ham on a 9, thereby saving the day for her rifle-shooting husband, who up to that time had not had the time and the good fortune of winning anything. His department represented a favorable contrast to the disgraceful conduct of one Elmer Astleford, who appeared on the range with a disreputable looking single-shot contraption manufactured by Winchester about the time P. T. Barnum was attending kindergarten, with obsolete sights and a stock which he made himself, apparently out of an old fencepost. When last seen, Elmer was headed in a southwesterly direction with a guilty look on his face, trying to conceal three live chickens and a 10-pound ham on or about his person.

Clyde Sayers, crack pistol shot of the Detroit Police, was on hand, armed with a Stevens single-shot rifle (Little Scout Model, ten-year-old size), fired a few relays, and took a perfectly good ham. V. D. Wickersham, in Relay 32, fired the most perfect shot of the day—a perfect pinwheel.

Now came the last relay. The crowd had already thinned out considerably, but fifteen men were found, one of them Henry Schuman, statistical officer, whose duties, together with numerous sighting shots continued from the preceding Saturday afternoon, had kept him busy. Dame Luck smiled on him, however. He won the last ham, and after considerable urging by other members of the club, agreed to accept it and take it home with him.

There were many strange faces, but also a good many of the old-timers belonging to other organizations; men one would meet regularly at Camp Perry, Camp Custer, Lansing, etc., such as John French, Moses Gates, Dad Kirchner, R. Kimmel, Floyd Markham, Jack Lowrie, Captain Shoemaker, etc. Lieutenant Colonel Foster, Michigan Secretary of the N. R. A., spent a few hours with us.

Our thanks go out to the men who helped to make the event the success it turned out to be: To Cy Gettys for furnishing the range and helping to get it into shape; to "Big Bill" Rolston for furnishing most of the ideas, actively helping with hammer, saw, and scythe (for the range was nothing but a rampant weed field); to Miller and Hartley, who furnished one of their trucks to haul the livestock and material in; to Walter Gray, who impersonated a pretty good range officer; to the two Hartley brothers, Russell Smith, and Henry Schuman, who kept track of the cash, all of them having their fingers in the money bag most of the time. We took in \$135, and it balanced to the cent. Prizes were furnished by J. W. Browne, meat market, Ferndale, at practically cost, and the quality of everything was of the best.

The women of the club did a lot of work. They ran a first-aid station to the famished in the rear of the firing line. The splendid doughnuts were baked by Mrs. Gettys. Everything was good; everything was sold out with a few dollars to the good.

Colonel Foster announced on the range



that November 7 had been selected as the date for the annual banquet of N. R. A. members in Michigan. One of the main purposes of this meeting will be the formation of the Michigan State Rifle Association.

### HOUSTON RIFLE AND REVOLVER CLUB GOING STRONG

By ELVEN DALE ANDERSON, President

THE Houston Rifle and Revolver Club, which was reorganized from the old Houston Revolver Club several months ago, is proving to be very popular in Houston. The club has installed three of the most modern indoor rifle and pistol ranges in the country. The ranges are located in the basement of the Medical Arts Building. Twenty marksmen can be accommodated at one time. The backstop is made of ¼-inch boiler plate and is 14 feet long and 7 feet high, while the two pistol ranges are made of ⅝-inch boiler plate and are 14 feet long and 7 feet high. When necessary, one of the pistol ranges can be used as a rifle range.

The club is well equipped with lights, shooting tables, benches, individual platforms for prone shooting, bulletin boards, etc. The officers are: Elven Dale Anderson, president; Harvey Chelf, vice president and range officer; F. A. McAleer, secretary and treasurer; Dr. F. P. Rosenstein, assistant secretary and business manager. The club meets every Tuesday and Thursday nights. N. R. A. members from other cities who visit Houston are cordially invited to attend and take part in the matches.

For the benefit of other clubs who may be having trouble with their finances, let me say that the Houston club has solved the problem. Besides the regular entrance fees and annual dues, which are small, one night each week is held as public night. This is usually Tuesday night; and on this night an entrance fee of 10 cents is charged for the rifle shoot and a like sum for the pistol shoot. The fee is paid by club members as well as outsiders, and, together with the sale of ammunition and targets, soon runs into quite a little money. Prizes are awarded to the best shots, and it sure stirs up enthusiasm among the competitors. These are usually handicap affairs, and everyone has an equal chance at the prizes, and as most shooters shoot both for the pistol and rifle prizes, it runs dimes into dollars.

### ROXBURY VS. PERTH AMBOY

LATE in October a 200-yard, .30-caliber match was fired between the Roxbury (N. J.) Rifle and Pistol Club and the Perth Amboy Rifle Club, of New Jersey. The course consisted of 5 shots offhand, 5 kneeling or sitting, 5 prone, and 5 rapid. The match was exceedingly close, Roxbury winning by 4 points.

The Perth Amboy Rifle Club won the Palma Team Match at Sea Girt last July, and Samsoe, Sorensen, and Pedersen of the Perth Amboy Team were among the winners in the 36th Annual Interstate Tournament recently held at Sea Girt.

Following are the Roxbury-Perth Amboy scores:

ROXBURY		PERTH AMBOY	
Dinwiddie .....	96	Samsoe .....	96
Cummings .....	94	Pedersen .....	92
Danielson .....	93	Sorensen .....	92
Lanterman .....	93	Monty .....	92
Regad .....	92	Larsen .....	92
Total .....	468	Total .....	464

### RAILWAYMEN COP LONG-RANGE TROPHY

From an Akron (Ohio) Daily

WITH a score of 746, one more than the Akron Rifle Club, the A. C. & Y. Railway Team Sunday afternoon on their outdoor range copped the Northeastern Ohio Long-Range Shooting Trophy.

S. H. Johnson, of the A. C. & Y. Team, won a gold medal for having the highest individual score. Silver medals for high scores of their teams were given to Catherine Kessler, of the Akron Rifle Club, S. Sundberg, of the Babcock and Wilcox Rifle Club, and C. Reckner, of the American Legion Club, of Barberton.

The Babcock and Wilcox Team scored 707 points in the shoot, and the Barberton Legion Team turned in a score of 656.

Scores of the riflemen, each shooting 20 shots for a possible 200 score, are as follows: A. C. & Y. Railway Club: S. H. Johnson, 191; W. E. Kelly, 190; Ralph Haines, 183; M. V. Cossin, 182. Total, 746.

Akron Rifle Club: Catherine Kessler, 187; M. D. Miller, 186; V. Z. Canfield, 186; Dana Scarborough, 186. Total, 745.

Babcock and Wilcox Club: S. Sundberg, 187; J. Wallin, 179; C. Capron, 175; C. Greer, 166. Total, 707.

American Legion Club: C. Rickner, 183; J. Thesing, 173; C. Jenny, 159; M. Wansky, 141. Total, 656.

### WORTH COPYING

THE following range rules worked out by Capt. Walter C. Mayer, the energetic Assistant N. R. A. State Secretary for New York State and Instructor in Small-Arms Practice for the Chatham-Phenix National Bank & Trust Co. branches, are well worth keeping and posting up in every range. As a matter of fact, they are worth handing to any new shooter with instructions to memorize them before he goes to the firing point the first time:

### CHATHAM-PHENIX NATIONAL BANK & TRUST CO.

#### RANGE RULES

1. *Never* handle, point or look over the sights of any firearm handed to you without first opening the arm to be sure it is not loaded.
2. *Never* take a revolver or pistol out of your pocket or holster until you are at the firing line. If you wish to unload your revolver before it is your turn to shoot, step up to firing line, *unload*, and show arm to instructor, swinging cylinder out. If an automatic, remove magazine, then draw slide back, and fasten it.

3. *Never* glance into your revolver hurriedly and decide it is not loaded. Look once to see that it is not loaded—look again to be sure. Do not look into the muzzle!
4. *Never* load or cock a revolver in any range unless you are at the firing point and facing the target.
5. *Never* lower a revolver so that it will point toward any part of the body. This is liable to happen when you are resting and between shots. When resting, lay revolver on the table in front of you; if you can not do this, rest it in the hand, always pointing toward the target.
6. *Never* turn around and talk to persons behind you when at the firing point without first laying arm down or placing same in holster.
7. *Never* leave the firing point without first unloading and leaving cylinder swung out.
8. *Never* point revolver upward, or backward over shoulder. By so doing you are making all parts of the range unsafe.
9. *Never*, in case of misfire, open revolver for at least twenty seconds. Keep the firearm pointed toward target.
10. *Never* try any fancy shooting or quick draw unless in presence of instructor.
11. *Never* point revolver at anyone or anything you do not want to hit.
12. *Never* fire a shot until you know your sights are in line with your object. To do otherwise, you are only wasting ammunition and valuable time. Make every shot count.
13. *Never* talk to a shooter when he is on the firing point. Wait until he is finished and steps away.
14. When finished shooting, clean revolver thoroughly, pick up all empty shells, and place in receptacle provided for that purpose.
15. If in doubt about anything, ask the instructor.

### MORRIS STILL LEADING RIFLEMAN TROPHY MATCH

WITH about six weeks left in which to pile up points in the American Rifleman Trophy Match for 1929, Morris (Minn.) Rifle Club and the Westric Club, of Chicago, are still engaged in a neck-and-neck battle for winning honors. At this writing (November 12) the Morris outfit is out in front with a lead of nearly 40 points over their Westric rivals. Leading scores are Morris 242; Westric 202½. Other clubs which are well up in the standing are East End Rod and Gun Club, Turtle Creek, Pa., score 141; Burbank (Calif.) Rifle and Revolver Club, 139½; and the Junior Mechanics Rifle and Pistol Club of Taft, Calif., 133.

The American Rifleman Trophy Competition for 1929, now swinging into its final stage, is sponsored by the N. R. A. and THE AMERICAN RIFLEMAN. It is a friendly "match" open to affiliated N. R. A. clubs, and points are scored on the basis of memberships, subscriptions, and entries in the N. R. A. Postal Matches, provided such

(Continued on page 36)



(A Unit of the National Rifle Association devoted to teaching every boy and girl in America the safe and accurate handling of the rifle.)

Conducted by H. H. Goebel

## Second Series Biweekly Matches Start January 11

WITH the completion of the sixth match in the first series of biweekly matches for the 1929-30 season arranged for the week ending December 14 the three high teams in each division will receive team trophies. The high team in the new Expert Division added to the program this year will also receive a trophy. With a short intermission in activities during the holiday period the second series will get under way with the first match arranged for week ending January 11. In this second series there will be but six matches—a match to be fired every other week. By conducting these team events in short series late comers have a chance to start in on an even keel for one or more of these championships.

Entries for these matches should be in the mails early, so that teams may be provided with the full set of official targets for all matches. The entry fee is but \$1 a team for each series. Each of the matches is fired on schedule, and returns are made within five days after the completion of each match for an announcement and publication of an official bulletin listing the many entrants in their respective divisions and for standing. Clubs are privileged to enter as many teams as they wish in either the one- or four-position matches, but no one member may fire on more than one team in each class. In the prone matches teams consist of ten competitors, the five high scores to count for team total. Each member fires 10 shots for record, 2 shots in each bull's-eye. A change with respect to the number of competitors has been made for the position matches. Heretofore teams consisted of but five competitors, all scores to count, but these have been increased to seven with the five high total scores to count for the team total. Members fire 10 shots for record in each of the four positions.

Teams will again be classified in divisions according to the scores submitted in the first match. The better shooting outfits will comprise Division A. The teams having had less experience will make up Division B, and the inexperienced teams will be placed in Division C. In the Expert Division of the matches there are no classifications; all teams compete for standing according to score. This arrangement places all teams in

groups of approximately the same shooting strength, but they are encouraged at all times to advance to higher classification and keener competition. These advancements come about as the team scores warrant the advancement into faster company.

In each division points are allotted the ten high teams. In the A Division the points range in multiples of 30 up to 300. In the B Division the points are in multiples of 20 up to 200; and in the C Division in multiples of 10 up to 100. It sometimes happens that several teams in a match are tied with the same score. In that case teams are given full credit for their standing along with a like number of points. At the conclusion of each series of matches the three high teams in each division are awarded appropriate trophies, while the high team at the completion of the three series receives a special trophy and five bronze medals for the members of the team. Determine that these awards will become the property of your club by submitting your entry today.

### BIWEEKLY MATCHES—SECOND SERIES

Matches week ending—	Returns due in Washington—
January 11	January 16
January 25	January 30
February 8	February 13
February 22	February 27
March 8	March 13
March 22	March 22

The plan of special presentations which has proven successful among several of our groups has been adopted by the Osage Junior Rifle Club, of Kirkwood, Mo. With visitors present including the parents of the boys, a special meeting is provided for this occasion. At the last meeting Mr. Fred McAvoy, one of the business men, gave an appropriate talk to the Junior riflemen, and Pro-Marksman awards were presented to John Herron and Robert Signor. Due to the majority of the club members being unfamiliar with the rifle before their affiliation, shooting has been restricted to the single-bull targets. However, these boys are now able to group their shots well and the 5-bull's-eye targets are being introduced.

### MEMBERSHIPS EXPIRE DECEMBER 31

WITH the rounding out of the year on December 31, individuals and clubs in the Corps that have failed to submit their re-affiliation fees will no longer be counted as active members. These clubs and members will be transferred to our inactive lists, and naturally they will not be eligible to compete in the advanced stages for decorations or in the programmed individual and team matches scheduled for competition beginning in January. Subscriptions to the *Junior News* will also cease for Junior members and medal winners who fail to respond to these reminders.

Individual and club members have been furnished with special applications for his or her renewal of membership. Club secretaries have also been asked to submit a revised list of their active members and club officers with the re-affiliation fees. It is gratifying to see how many of these are being returned, but there are still a goodly number to be heard from.

Active members of the Corps are held in constant contact with changes, developments, and accomplishments occurring daily through the Junior Rifle Corps *News*, which is placed in the mails monthly. Local matches, special achievements, bulletins of national events, Experts and Distinguished Riflemen, and the programming of future matches are featured in these columns. As a club member, provided the club has been placed in good standing for 1930, you are still eligible for this publication; but you must notify National Headquarters, so that your medal record will be transferred to the 1930 files for your *News* mailing. Club members neglecting to write in will naturally forfeit their *News*.

It has been a great pleasure to work with and watch the progress of our many members during the past year, and we sincerely hope that these relationships will be continued. Why not avoid the possibility of a lapse in your subscription to the *News* and in your shooting program by submitting your membership fee of 25 cents now? An early response will also help matters considerably at Headquarters, as much of the last-minute rush can be eliminated.

We are now building for 1930. For us to meet our aims in teaching every boy and girl in America the safe and accurate handling of the rifle we are counting on your continued interest and co-operation. See if you can not interest and acquaint your friends in this Junior program of training and competition. Submit these applications along with yours for a new 1930 membership card and button and also one of the new rule books which have recently been revised and brought up to date. As a club member, ask your instructor what he has done about placing your club in good standing for the year. Help him reorganize, so that you and your friends can continue with your qualifications and compete in matches of national standing.



## BIWEEKLY MATCH RESULTS

THE first of the biweekly team matches opened with the match arranged for the week ending October 5. Although this schedule seemed a little early for a number of our affiliated clubs, forty-two teams were able to make returns in the prone division of matches and nine teams in the Expert or four-position division. The team scores determined the classes in which clubs were entered. Teams submitting scores of 475 or better were placed in Division A. The B Division was made up of teams submitting scores of 450 through 474, and the C Division consisted of those scores below 450. In the first match eight teams made the select or Division A. Fifteen teams were placed in Division B, and nineteen teams in Division C.

Fresno High School, of Fresno, Calif., led the field with 492 x 500. Western High School, of Washington, D. C., came second with 489, followed by the Cameron Junior Rifle Club, of Alexandria, Va., with 484. The Malden High School first team, of Malden, Mass., led the B group with 473. Richmond Hill High School, of Richmond Hill, Long Island, N. Y., came second with 470. Centennial High School second team, of Pueblo, Colo., came third with 467. In the C Division the girls of the Western High School, of Washington, D. C., were in the lead with 448. Malden High's second team placed second with 443, followed by the girls of the Blodgett Vocational High School, of Syracuse, N. Y., with 438. In the Expert class Kemper Military School's first team, of Boonville, Mo., took first place with 1,754 x 2,000. The first team of the Grover Cleveland High School, of St. Louis, Mo., followed with 1,716, and Richmond Hill High third with 1,711.

Points are allotted for standing in each of the divisions in the prone matches. In the A Division points in multiples of 30 up to 300 are given to the first ten places (winner 300, second 270, etc.). In Division B the points are in multiples of 20 up to 200, and in Division C in multiples of 10 up to 100. Teams, however, are allowed to progress and advance to higher division rating as soon as they have made the required scores. However, in the Expert Division there are no classifications and teams are given points in multiples of 10 up to 100.

The second match found many changes in standing. The Western High School Team turned the tables and with a very fine score of 493 x 500 easily led the A group. Evanston Township High, of Evanston, Ill., also stepped up a few notches to take second honors, with 489. Centennial High's first team, of Pueblo, Colo., placed among the three high with a score of 488. Changes also came about in the standing of the B teams. Richmond Hill High and the Morgan Park High School, of Chicago, Ill., topped this group with scores of 485 and 476, respectively. These scores of Division A rating automatically places these teams in the select division for the following match. Centennial High's second team again took third place with 474. There was but one change in the standing of the leaders in the C Division. Western

High Girls' again led with 471, placing them in Division B for the next match. Malden High's second team dropped a couple of points, although holding second place with 441. The Y. M. C. A. Rifle Club, of Great Falls, Mont., stepped up to third place with 435. The high teams in the Expert Division finished in the following order: Kemper Military School, first team, 1,762; Grover Cleveland High, first team, 1,754; Fresno High, 1,746.

There were a number of possible scores submitted by individuals in this match. Jack Riddell and Herbert Gardner, of Evanston, and William Collins, of Western High, made possibles in the prone matches. In the Expert Division, Kemper had two representatives submitting possibles. A. J. McGuire made his sitting, while J. C. Custell made one prone.

Again, there were upsets in the third match. Warren Harding High School, of Bridgeport, Conn., failing to place in the two previous matches, suddenly struck its stride, turning in the remarkable score of 496. Three of the team members—Smiler, Jagorillo, and Sheane—submitted possibles. Richmond Hill High, just recently advanced to the A group, were hard on their heels, having a score of 495. Two team members—Emil Hergert and Reginald Seidel—turned in possibles. Western High, with one possible made by T. Cooke, had to be content with third place, their score being 494. The two leaders in the B Division—Old Pueblo Rifle Club, of Tucson, Ariz., with 477, and Blodgett Vocational High first team, of Syracuse, N. Y., with 476—will be seen among the A Division teams for the match of week ending November 16. Malden High's first team trailed in third place with 473. However, it wouldn't be at all surprising to find this team in the select group after this next match. The Central High School Team, of St. Paul, Minn., was the lone team in the C Division to advance to higher rating. Leading with a team score of 450, the Boy Scout Rifle Club, of Kansas City, Mo., and the Malden second team tied for second place with 448. The Kansas City Club also had a possible made by Walter Lane. Central High School, of Newark, N. J., then followed with 447. Richmond Hill's four-position team also jumped to the front in the Expert Division, easily leading the group with a team score of 1,804. Fresno High and Kemper's first team followed in order with scores of 1,760 and 1,754, respectively. The scores for the third match follow:

PRONE DIVISION  
Bulletin No. 3—Week ending November 2.  
DIVISION A (475-500)

	Score	Points	Total points
1. Warren Harding High, Bridgeport, Conn.	496	300	630
2. Richmond Hill High, Richmond Hill, N. Y.	495	270	650
3. Western High, Boys, Washington, D. C.	494	240	810
4. Fresno High, Fresno, Calif.	491	210	690
5. Episcopal Academy, Overbrook, Pa.	486	180	390
6. Centennial High, 1st, Pueblo, Colo.	485	150	600
7. Evanston Township High, Evanston, Ill.	481	120	510
8. New Trier High, Winnetka, Ill.	475	90	450
9. Morgan Park High, Chicago, Ill.	455	60	360

## DIVISION B (450-474)

	Score	Points	Total points
1. Old Pueblo Rifle Club,* Tucson, Ariz.	477	200	300
2. Blodgett Voc. High, 1st, Syracuse, N. Y.	476	180	400
3. Malden High, 1st, Malden, Mass.	473	160	460
4. Centennial High, 2nd, Pueblo, Colo.	471	140	460
5. Turlock Union High, Turlock, Calif.	470	120	340
6. Washington University, St. Louis, Mo.	470	120	120
7. Elyria Rifle Club, Elyria, Ohio	466	100	220
8. Upper Darby High, Upper Darby, Pa.	461	80	200
9. Western High, Girls, Washington, D. C.	460	60	260
10. Blodgett Vocational Hi., 2nd, Syracuse, N. Y.	458	40	60
11. Wilby High, Waterbury, Conn.	457	20	180
12. Curtis High, Staten Island, N. Y.	454	...	20
13. Y. M. C. A., 1st, South Bend, Ind.	437	...	20

\* Division A teams for match of November 16.

## DIVISION C (BELOW 450)

	Score	Points	Total points
1. Central High,* St. Paul, Minn.	450	100	200
2. Boy Scout Rifle Club, Kansas City, Mo.	448	90	200
3. Malden High, 2nd, Malden, Mass.	448	90	270
4. Central High, Newark, N. J.	447	80	170
5. Blodgett Voc. Hi., Girls, Syracuse, N. Y.	445	70	220
6. Roosevelt Rifle Club, Asbury Park, N. J.	438	60	60
7. Warren Harding Hi., Fresh., Bridgeport, Conn.	434	50	50
8. Bonita Union Hi., 1st, La Verne, Calif.	431	40	130
9. Y. M. C. A., 3rd, South Bend, Ind.	430	30	70
10. Y. M. C. A., 1st, Great Falls, Mont.	423	20	140
11. Y. M. C. A., 2nd, South Bend, Ind.	415	10	80
12. Horlick, High, Racine, Wis.	410	...	60
13. St. Paul's Church R. Club, Brooklyn, N. Y.	404	...	20
14. Bonita Union High, 2nd, La Verne, Calif.	402	...	10
15. Greenfield Boy Scout, Greenfield, Mass.	395	...	...
16. Normandy High, St. Louis, Mo.	380	...	...
17. Y. M. C. A., 2nd, Great Falls, Mont.	352	...	10
18. Osgae Rifle Club, Kirkwood, Mo.	331	...	...
19. Eau Claire High, Girls, Eau Claire, Wis.	324	...	...

\* Division B teams for match of November 16.

## EXPERT DIVISION — 4 POSITIONS

	Score	Points	Total points
1. Richmond Hill High, Richmond Hill, N. Y.	1,804	100	250
2. Fresno High, Fresno, Calif.	1,760	90	170
3. Kemper Military School, 1st, Boonville, Mo.	1,754	80	280
4. Kemper Military School, 2nd, Boonville, Mo.	1,685	70	190
5. Grover Cleveland High, 1st, St. Louis, Mo.	1,679	60	240
6. Evanston Township High, Evanston, Ill.	1,613	50	170
7. Kemper Military School, 3rd, Boonville, Mo.	1,569	40	120
8. Bonita Union High, La Verne, Calif.	1,392	30	50
9. Grover Cleveland High, 2nd, St. Louis, Mo.	1,329	20	70

Rifleman C. E. Southgate is a new member in the Junior Rifle Corps, having affiliated during the early part of October. With a brand-new rifle to begin his practice he is about one of our most enthusiastic members and is now ready to qualify for the many individual decorations. There are but a very few Junior riflemen in the vicinity of Fairmount, Ind., and Charles would like to correspond with other boy and girl members of the Corps. No doubt there will be several members interested, and Charles may be reached at 114 S. Mill Street, Fairmount.



## THE MESSAGE OF CHRISTMAS

PERHAPS there is no season of the year when joy registers so prominently in the lives of the boys and girls of the universe as during the Christmas season. This spirit of happiness and appreciation is brought about through the dominant feeling of satisfaction that comes from the giving and receiving of gifts and the many expressions of good will.

Many of our Junior members will this year receive the gift of gifts—a rifle. At no time in boy- and girl-dom has this sport of rifle-shooting been so popular and has it been accepted as an educational and instructive training as it is today. Parents who were reluctant about rifle-shooting as a Junior activity are today as never before letting their children handle and own a rifle. There is a reason back of this which in a large sense may be attributed to the work of the Junior Rifle Corps, which has been teaching, preaching, and working to make possible the time when we all might enjoy this king of sports—rifle-shooting.

Parents and adult leaders who had been in the habit of looking upon the rifle as destructive were told of its constructive qualities. A new light soon shown on the sport, and with the training in marksmanship furnished through courses of instruction for adult leaders and Juniors and the supplying of incentives in the form of diplomas, medals, pins, bars, and trophies, the sport has gradually taken hold and is now recognized as an essential activity.

We are naturally happy and thankful that we are able to render this service to our country. Today we find thousands of boys and girls in all Junior institutions in the four corners of the country accepting this sport. In addition to a highly competitive program of organized team events more than 25,000 decorations are awarded annually for individual achievement with the rifle.

Not least among the many things that have been very gratifying to us during the past year is the knowledge that many of our members are stepping along into the Senior work, establishing records in the greater field of events, while some are carrying on the principle of the Junior Rifle Corps by passing on to others in their communities their teachings by becoming associated with and instructing local Junior Rifle Clubs. Others are assisting in many ways in the promotion of this great task of teaching every boy and girl in America the safe and accurate handling of the rifle.

We are getting somewhere. Things are gradually being accomplished that have long been left undone. We have all caught the Christmas spirit of service and have kept it going the year round. Let us again this year get behind this movement and fulfill our objective by carrying on this great principle of Service to and for all.

## MOSTLY PERSONAL

INSTRUCTOR F. M. Heal, leader of the Willard Hall School Rifle Team, of Wilmington, Del., for several years, has recently accepted the position of vice principal at the Emalea Pusey Warner Junior High School, also of Wilmington. It was at first thought that we

(Continued on page 32)

## JANUARY—INDIVIDUAL SCHOLASTIC, MILITARY SCHOOL, AND JUNIOR GALLERY CHAMPIONSHIPS

INDIVIDUAL and club members have a chance this next month to demonstrate their ability with the rifle in national competition. Three individual championships are to be fired, one open to members attending schools of the high or preparatory grade, one for members attending military schools, and the third, a new addition to the Junior program of individual matches, a four-position match open to all.

Entries for all matches close on January 1; so you will have to act quickly if you are to be numbered among the many competitors seeking national honors. The targets may be completed at any time during the month of January, and all returns must reach National Headquarters not later than February 1. The conditions for each match follow:

## INDIVIDUAL SCHOLASTIC CHAMPIONSHIP

**Open to**—Any student who is a member of the N. R. A., the N. R. A. J. R. C., or of an affiliated club, attending a school of the high or preparatory grade except military schools.

**Conditions**—Forty shots prone, fired in four strings of 2 sighters and 10 record shots each.

**Entrance fee**—25 cents.

**Prizes**—To the winner the title, "Interscholastic Gallery Rifle Champion 1930," and a silver medal; second to tenth, bronze medals; percentage medals.

**Entries close**—January 1, 1930.

**Targets in Washington**—Not later than February 1, 1930.

## N. R. A. INDIVIDUAL MILITARY SCHOOL CHAMPIONSHIP

**Conditions**—Three stages. An entire stage must be completed in one day. A stage will consist of two strings each of 2 sighting shots and 10 shots for record, fired in the following order: First stage, one string prone, one sitting; second stage, one string prone, one kneeling; third stage, one string prone, one standing.

**Entrance fee**—25 cents.

**Prizes**—To the winner the title, "Military Schools Gallery Rifle Champion 1930," and a silver medal; second to tenth, bronze medals; percentage medals.

**Entries close**—January 1, 1930.

**Targets in Washington**—Not later than February 1, 1930.

## INDIVIDUAL JUNIOR GALLERY CHAMPIONSHIP

**Open to**—Individual and club members in good standing in the N. R. A. J. R. C.

**Conditions**—Four stages. A stage will consist of one string each of 2 sighting shots and 10 shots for record, fired in the following order: First stage, one string prone; second stage, one string sitting; third stage, one string kneeling; fourth stage, one string standing.

**Prizes**—To the winner the title, "Individual Junior Gallery Champion 1930," and a silver medal; second to fifth, bronze medals.

**Entries close**—January 1, 1930.

**Targets in Washington**—Not later than February 1, 1930.

## EXPERTS AND DISTINGUISHED RIFLEMEN

JUNIOR members of the National Rifle Association who patiently strive on through the intermediate stages of marksmanship and finally qualify for the Expert Medal and Distinguished Rifleman Bar have learned to "Hit where they aim." When target qualifications are submitted month after month, each stage showing a decided improvement in scores, letters and diplomas as rewards for achievement clearly indicate the fact that something worth while has been accomplished. These diplomas and medal decorations are to be prized as evidence of mastering the ability to shoot.

In each issue of the *News* we make special mention of those who have during the current month qualified for these individual honors. It is a noteworthy fact that the majority of these members are connected with a regularly organized shooting club, many of them assisting with the routine of club affairs by holding office. This bears out our contention that members advance much more rapidly when associated with a local club, for generally their equipment is much more elaborate, they have the advantage of individual and interclub competition, and also learn through the coaching and teaching of their instructor. The spirit maintained through this association is also a factor in carrying on until the final goal is reached.

It is also interesting to note that these Experts and Distinguished Riflemen are not by any means in one section of the country, but rather reach from the border States to southern Texas and from the Atlantic to the Pacific coast. So, to those who have partially lost heart and are a little impatient, keep plugging along, for no one has ever qualified who has ceased trying. You, too, can soon possess these honors.

The following qualified during the past month:

## EXPERT RIFLEMEN

Dorothy O'Connor, Detroit, Mich.  
Philip Argres, Brooklyn, N. Y.  
Tildon Robinson, Brooklyn, N. Y.  
Roy Gordon Beh, Maplewood, N. J.  
Grover Brown, Brighton Heights, S. I., N. Y.  
Walter A. Glass, Washington, D. C.  
Charles H. Lambur, St. Louis, Mo.  
Royce Rearwin, Salina, Kans.  
Beverly Stone, Bristol, Va.  
Willard Van Dorer, Ridgewood, N. J.  
Scherzer Spring, Sausalito, Calif.  
Stuart R. Mudge, Salina, Kans.  
Paul Bloch, New York City.  
Charles Abbott, Portland, Me.  
Harry N. Lempert, Chicago, Ill.

We are listing six of our leaders who during the past month have completed the Correspondence Instructors' Training Course in ten lessons and have received their commissions:

Marion Clark, Abilene, Kans.  
Charles Graf, Jr., Ozone Park, Long Island, N. Y.  
Edward J. Walsh, Brooklyn, N. Y.  
John E. Monaghan, Omaha, Nebr.  
William J. Ryan, Kenilworth, Ill.  
H. T. Becker, Vinita, Okla.

## FATHER-AND-SON SHOOT

RIFLE-SHOOTING as a family sport is fast coming to the front. It is not unusual to find brothers and sisters, fathers and mothers, competing in friendly matches. Further, it being universal in its application, it is also an all-year-round activity. That is just what makes it so popular.

The general trend in athletics of today is to specialize on the chosen few for a winning combination at the expense and neglect of the thousands of spectators. To be sure, there are many of us, because of age or physical handicaps, who are unable to participate in the more strenuous activities. How much finer and greater it would be if things were reversed at the world's series ball games, football games, and boxing bouts—if there were but eighteen, twenty-two, and two spectators and hundreds of thousands of performers rather than forty-two performers and hundreds of thousands of spectators! We are too ready to be entertained rather than entertain.

All this can not be said of rifle-shooting, for it is one of the only sports in which every enthusiast or follower is an active participant. Regardless of age, strength, or build one interested may still shoot.

Not so long ago a boys' rifle club was organized in one of the churches of the East. Fathers soon became interested in the achievements of their sons and tried their hand at the game. The result was that the Men's Club of the church also organized. The girls were not to be outdone, and they too fell in line. It wasn't long before three-cornered individual and team matches were scheduled.

Father-and-son shoots, mother-and-daughter or brother-and-sister shoots may be conducted in two ways. You can get up a team of fathers and have them compete against a team of daughters; but the better stunt is to have the father-and-son or mother-and-daughter shoot as a pair against another pair. There may be several pairs firing the same course, the pair having the highest total scores being the winner.

Matches such as these would work well in connection with the father-and-son dinners, which are becoming so popular. First hold a preliminary shoot to determine the two best pairs of shots and if there is time have them fire the finals the night of the banquet. At any rate, have the prizes presented that night.

## MOSTLY PERSONAL

(Continued from page 31)

would lose Instructor Heal from our ranks, but to our pleasure we have learned that he is organizing the sport of rifle-shooting at his new location. The boys and girls are both interested, and present indications are that an enthusiastic group will result.

The rifle team of Grover Cleveland High School, St. Louis, Mo., extends an offer to meet any team or teams of the N. R. A. J. R. C. in a dual match under the following conditions:

Each team will consist of ten men, the five high scores to count.

Rifles may be any .22-caliber short, long, or long rifle.

Range distance to be 50 feet.

Targets must be N. R. A. J. R. C. 5-bull's-eye, 1 shot allowed in each bull.

Sights may be any not containing glass.

Course of fire to be 5 shots for record in the prone position, 5 sitting, 5 kneeling, and 5 standing, each man firing 20 shots, the five-man-team possible to be 1,000. No sighting shots allowed on the official targets.

All shooting must be supervised by the team coach or director and signed as the witness.

Scores will be telegraphed or sent by mail upon completion of each match and targets exchanged before and after match.

Here is an opportunity for many of our clubs to gain experience in four-position competition. All communications of acceptance should be addressed to Lieut. R. C. Wilson at the Grover Cleveland High School, 4353 Virginia Avenue, St. Louis, Mo. This same outfit is also interested in carrying on two-man-team matches and has requested that special mention be made.

With a creditable enrollment, the Black Foxe Military Institute, of Los Angeles, Calif., opened its first session during the middle of September. This school, which has taken its place as the elite school of the Pacific coast, is under the supervision of Maj. H. L. Black and Maj. Earle A. Foxe. Many of our adult leaders and members will recall the work carried on in the field of rifle-shooting by Instructor Black at the Urban Military Academy. The rifle program is to be a feature activity at Black Foxe, many of the members continuing with their achievements started during the summer camp. It is the policy of the school to eliminate charges for all extras, and as a result the rifles, targets, ammunition, and also the N. R. A. J. R. C.

awards will be furnished without obligation to the students.

## STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of N. R. A. JUNIOR RIFLE CORPS NEWS, published monthly at Washington, D. C., for October 1, 1929.

City of Washington, District of Columbia, ss.: Before me, a Notary Public in and for the District aforesaid, personally appeared Herbert H. Goebel, who, having been duly sworn according to law, deposes and says that he is the Editor of the N. R. A. JUNIOR RIFLE CORPS NEWS, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, National Rifle Association of America, Washington, D. C.

Editor, Herbert H. Goebel, 816 Barr Bldg., Washington, D. C.

Managing Editor, none.

Business Managers, Executive Committee, National Rifle Association of America.

2. That the owner is: National Rifle Association of America.

That the principal officers are:

Lieut. Col. L. M. Runsey, St. Louis, Mo., President.

Hon. Benedict Crowell, Cleveland, Ohio, First Vice President.

Maj. Gen. F. C. Ainsworth, Washington, D. C., Second Vice President.

Col. G. A. Fraser, Bismark, N. Dak., Third Vice President.

Brig. Gen. M. A. Reckord, Baltimore, Md., Executive Vice President.

C. B. Lister, Washington, D. C., Secretary-Treasurer.

3. That the known bondholders, mortgagees, and other security holders, etc., are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

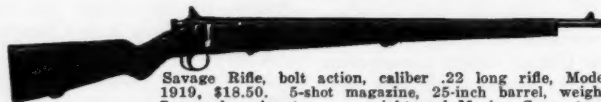
H. H. GOEBEL, Editor.

Sworn to and subscribed before me this 30th day of September, 1929. ELSIE N. ENGLAND,

(Seal) Notary Public.

(My commission expires February 17, 1933.)

## .22 SAVAGE MODEL 1919—\$18.50



Savage Rifle, bolt action, caliber .22 long rifle, Model 1919, \$18.50. 5-shot magazine, 25-inch barrel, weight 7 pounds. Aperture rear sight and Marine Corps type front sight

Savage, Model 19, N. R. A. Match Rifle, .22 cal., Bolt Action, 25-inch Barrel. Aperture Rear Sight, with Windage and Elevation Adjustments and Marine Corps Type Front Sight ..... \$18.50

## !!! CHRISTMAS SUGGESTIONS !!!

Radiator Emblems .....	\$2.50	N. R. A. Binders .....	\$1.75
Sheepskin Pads, Set .....	1.00	Spoons (for Mother) .....	2.00
Bull's-Eye Pistols .....	2.25	Hand-tooled Bill Folds .....	6.00

## RIFLES - AMMUNITION - CLEANING MATERIAL

N. R. A. SERVICE CO., Inc.

816 Barr Building

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Washington, D. C.





# DIRECTOR CIVILIAN MARKSMANSHIP

Conducted by Lt.-Col. J. M. Coward

ADDRESS: DIRECTOR CIVILIAN MARKSMANSHIP, WAR DEPARTMENT, WASHINGTON, D. C.



## SHIPPING TICKETS

CLUB secretaries are again requested to make a careful check of the property records of their clubs in order to discover unsigned shipping tickets or unanswered correspondence. There are several hundred unsigned shipping tickets for property which was received during the year still in the hands of rifle clubs which should be signed and returned to this office without delay.

The arsenals shipping this property are continually calling upon this office for these shipping tickets, and this office can do nothing on failure of clubs to do their part. Instructions have been issued to all clubs relative to the proper disposal of shipping tickets received for property and supplies which have been issued to them, yet it often becomes necessary to write three or four letters asking for the return of these shipping tickets, and in a number of cases it has become necessary to issue "Shipping Instructions" for the return of the Government property in the hands of the club before a return of the shipping tickets has been secured. It is not a pleasant task to repeatedly ask a club for these shipping tickets or to threaten them for their delinquency, with the withdrawal of the Government property; but this office must have the signed shipping tickets provided the clubs wish to remain on the rolls in good standing and be entitled to receive issues of Government supplies. This office is willing to give due consideration to any logical explanation; but when it becomes necessary to write three or four letters and receive no acknowledgment, no explanation is possible and the reason ascribed is plain neglect. It is a manifestation of complete lack of interest on the part of the club's officers.

This lack of interest on the part of the officers of a club readily reacts upon the membership, and its interest is soon lost or destroyed. The active clubs have active officers who are up and doing at all times. Remember we can not carry dead or moribund clubs. There is a large waiting list of live new clubs just awaiting recognition and acceptance for the purpose of obtaining Government supplies. It is unfair to these to deny them this right because places on the roll are being occupied by clubs which have so lost interest in the game as to neglect compliance with the most important regulations. Be a "go-getter" and send in those shipping tickets which are hidden away somewhere in your desk or club files.

## REPORT CHANGES OF ADDRESS

MUCH difficulty is being experienced by this office owing to the failure on the part of club secretaries to notify the Director of Civilian Marksmanship of changes in club officers and addresses of club officers. The failure to report these changes has caused much unnecessary correspondence between this office and the club. Shipments of supplies have been delayed, and correspondence returned. Greater co-operation can be effected by keeping this office informed of all changes occurring among the officer personnel of the club.

## ANNUAL RETURN AND REPORT OF FIRING.

THE time for submitting the Annual Return of Property and Annual Report of Firing will soon be at hand. That a big majority of the clubs have enjoyed a very successful shooting year is manifested by the excellent reports of firing which are being submitted to this office. Every effort is being made to issue the qualification insignias won by the members of these clubs, but on account of many unforeseen events this work has been retarded to a certain degree, but there is a glimmering hope that all insignia will be issued before the opening of next year's target season. There still remains much to be accomplished before the old .30-caliber Springfield is taken from the rack and put in condition for another record-breaking season. The Annual Return of Property and the Annual Report of Firing are two big factors which always play an important rôle in the existence of every rifle club, for without them there would be no clubs. The forms for these reports will be mailed to all club secretaries about December 21, 1929. The Annual Return of Property calls for a listing of all Government property actually in the hands of the club, while the Report of Firing calls for a synopsis of the shooting activities of the club. In order to avoid a delay in executing and submitting these reports it is suggested that club officials take an inventory of all Government property prior to the receipt of these blank forms and be prepared to execute them immediately upon their receipt. The same thing applies to the Annual Report of Firing. The shooting activities of the club could be written up and ready for submission at the time the blank forms arrive. By your hearty co-operation in submitting these reports without delay this office feels

certain that it can render the clubs a greater service during the 1930 shooting season than it did during the past. Co-operation is all that is asked. Do not place important letters or papers in the pigeonholes of your desks, where they are liable to be overlooked and forgotten, but co-operate with this office by completing these reports and returns and mail them on January 1, 1930.

## RELOADING TOOLS FOR SHOTGUN

THIS office has been informed by the commanding officer of Springfield Armory that there are available for sale to members of the National Rifle Association and rifle clubs 234 sets of reloading tools for 12-gauge brass shells for shotguns, consisting of one re- and de-capper, one loader with cap-exPELLER, and one powder measure, each set being packed in a pasteboard carton. There are also on hand 214 crimping tools used for paper shotgun shells each packed in a pasteboard carton. These tools were manufactured by the Bridgeport Gun Implement Co.

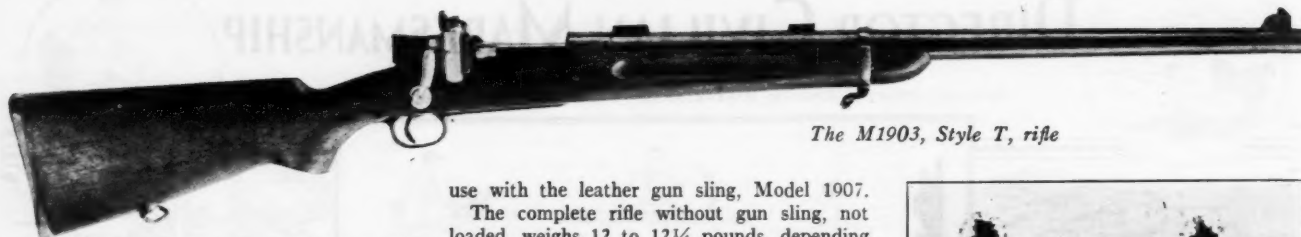
The sales price of a set of these tools, consisting of the reloading set and the crimping tools, is \$1.50, which includes the cost of packing. The cost of shipping must be borne by the purchaser. One of these sets of tools boxed for shipment weighs between 3 and 4 pounds, and from this the purchaser can ascertain from his postmaster the amount of postage he should include to prepay postage from Springfield Armory by fourth-class parcel post, which would be the cheapest method of shipment. Insurance would be 5 cents additional.

## DESCRIPTION OF THE U. S. RIFLE, CALIBER .30, M1903, STYLE T, HEAVY BARREL

THIS is a heavy-barreled target rifle shooting the .30-06 cartridge. It is intended for extremely accurate target-shooting at ranges of from 100 to 1,000 yards, and will be found to be the most accurate rifle made for this purpose. This rifle is also often used, when equipped with set triggers, special butt plate, and palm rest, for international free-rifle shooting.

The rifle is furnished with barrels either 28 or 30 inches long, tapering evenly from 1.25 inches at breech to .860 inch at muzzle. The barrel is star-gauged, and is rifled and chambered in the same manner as the barrels of the National Match rifle. It is polished and blued its entire length.





The M1903, Style T, rifle

The sighting equipment is the Lyman No. 48C receiver sight and the Winchester globe aperture front sight. Blocks are provided for Winchester A5, or Lyman 5A telescope sights. Fecker telescope sight blocks will fit the screw holes for the regular blocks.

The breech action is that of the Springfield, Model 1903, rifle, specially selected, hand fitted and polished, and with hand adjusted trigger pull. It is provided with headless firing-pin assembly and reversed safety-lock assembly.

The stock is the Model 1922 pistol-grip stock, exactly the same as furnished on the United States rifle, caliber .30, M1903, N. R. A. sporting type, except as to barrel groove. The butt plate is of checked-steel and shotgun type. Length of stock, 13 $\frac{3}{4}$  inches; drop at comb from line of sight, 1.82 inches; drop at heel from line of sight, 2.13 inches. The sling swivels are suitable for

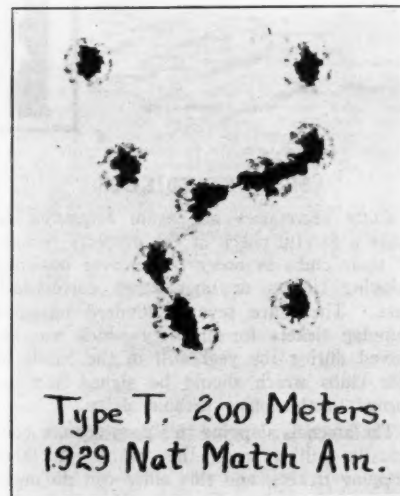
use with the leather gun sling, Model 1907.

The complete rifle without gun sling, not loaded, weighs 12 to 12 $\frac{1}{4}$  pounds, depending upon length of barrel and density of walnut stock.

These rifles are targeted from machine rest at 200 meters with 1920 National Match ammunition. Groups of 10 shots at this distance average about 2 $\frac{1}{4}$  inches in diameter. The test target accompanies the rifle.

This rifle is sold only to members of the National Rifle Association, through the Director of Civilian Marksmanship, and to officers of the Army and Navy. The price is \$85 plus a packing charge of \$1.34. Set triggers, palm rests, and special butt plates for converting this rifle for international free-rifle shooting can be obtained from dealers who advertise in THE AMERICAN RIFLEMAN.

[NOTE.—Beginning with this edition of THE AMERICAN RIFLEMAN, and continued in the following issues, a complete description of the various arms made by Springfield Armory and sold through the office of the Director of Civilian Marksmanship, together with photographs illustrating the same, will be published in these columns.]



Target shot by above rifle, exact size

## .22-Caliber Barrels and Groups

(Continued from page 18)

skill is equal to that of the best barrel-makers of the time. Fifteen groups in all were shot with this gun. As the gun was new at the time of shooting it is likely that it might do even better after a little more use. The groups measured: 1 $\frac{1}{4}$  inches; 1 $\frac{15}{16}$  inches; 1 $\frac{15}{16}$  inches; 2 inches; 1 $\frac{1}{2}$  inches; 1 $\frac{9}{16}$  inches; 1 $\frac{1}{4}$  inches; 2 inches; 1 $\frac{3}{4}$  inches; 1 $\frac{1}{2}$  inches; 1 $\frac{3}{8}$  inches; 1 $\frac{1}{2}$  inches; 1 $\frac{1}{8}$  inches; 1 $\frac{3}{8}$  inches; 1 $\frac{7}{16}$  inches.

I regretted very much that I was unable to obtain a Pope rifle and also a .22-caliber Springfield, but inquiries among the riflemen of Sacramento proved fruitless.

The results of my shooting were about what I expected. As every rifleman knows, it is not difficult to shoot possibles at 50 and 100 yards in practice, and practice shooting is of course a much better test than match shooting. Match shooting is a test of men, not of rifles. Any really good shot with good equipment, spending a Saturday afternoon in practice at his favorite sport, who did not obtain a few possibles at either 50 or 100 yards would go home in rather a depressed mood. I was therefore not surprised to find that all the rifles which I had selected very carefully were capable of averaging groups smaller than the 10-ring of the 100-yard target.

It may be true, as Colonel Whelen has said, that the average .22 target rifle will give only about 2 $\frac{1}{2}$ -inch groups, but I pre-

sume that the Colonel was including the entire list of target rifles in this country, some of them selling for as low as \$20 apiece, and practically never seen at any match of importance. My shooting was intended to test the accuracy of the very best rifles that can be obtained, and in trying to arrive at any conclusions I am referring to only such guns.

Taking for granted the supposition that a good machine rest will give a trifle smaller group than any method of rest shooting, even with the advantage of the best telescope sights and set triggers, I am satisfied that the best barrels and ammunition of today will average 1 $\frac{1}{2}$ -inch groups at 100 yards, and that 2-inch groups will occur rather infrequently.

If I were to fire each of my six rifles in a machine rest for fifty ten-shot groups I should expect the best performance to run something after this fashion: Two or three 1-inch groups; about ten or twelve 1 $\frac{1}{4}$ -inch groups; about twenty groups of 1 $\frac{1}{2}$  inches; ten to twelve groups between 1 $\frac{1}{2}$  and 1 $\frac{3}{4}$  inches, and five or six groups between 1 $\frac{3}{4}$  inches and 2 $\frac{1}{4}$  inches.

Among the minor points of interest to me in the firing of these guns was the fact that the factory barrels more than held their own against the special barrels. Undoubtedly the B. S. A. and Winchester that were used are superior to the average product of their respective factories, while the

special barrels probably represent the average work of their makers.

During the firing of the B. S. A. I was getting one misfire to every four or five shots, and occasional hang-fires. This was discovered to be due to the fact that owing to wear the block had dropped slightly and the firing pin was not indenting the cartridge on the rim, but a little nearer the center. In spite of the faulty ignition no loss of accuracy occurred, and when the trouble was remedied no change in the size of the groups was noticed.

Another somewhat surprising development was the extreme accuracy of the relined Ballard-Hitchcock rifle. Few riflemen, I believe, would wish to depend upon a relined barrel in any match of importance; but this rifle is equal to the best, bar none, and I have shot many a ten-shot group at 50 yards with this gun that could be covered by a dime.

In closing I wish to say that while I use Remington-Palma and U. S. N. R. A. cartridges in most of my shooting, I found other brands equally satisfactory in several of the rifles. The new Western Lubaloy and the Winchester Precision 200 were particularly good. However, as I always keep a large quantity of the first-named brands on hand for my pistol and revolver shooting, I used one of these whenever possible.

## EQUIPMENT FOR AFRICAN HUNTING

(Continued from page 10)

that the only thing they were after was a rest from work. In going through my cases at that moment I found that I had many times more vinegar than I could use in two years, and that night I sent word around the camp that from the next day on I was going to treat personally the sick and force them to take medicine right in front of me, so that it would be more effective. The next morning about 25 men showed up and I gave each of them a glass of vinegar, forcing them to drink it regardless of their contortions. From that day on I must say that health was always most excellent in my camp, and that with very few exceptions, such as cuts, wounds, or temperature, I never had to take care of any patients. Although discussed in a light manner, this matter must have full attention, and the natives must always be forced to take before you whatever medicine you give them. While on the Congo River an English doctor had to account for the death of a native who died of poison. This doctor, newly arrived in Africa, had been giving his patients aspirin, castor oil, vermifuge, salts, etc. A rich native had bought all of this medicine; and one day, when he had a headache, probably, he took all the medicine at once, and died in less than one-half hour.

The normal weight of the loads is 50 pounds for one man, or 100 pounds for two men. Unless you exercise great discipline you will see at once that the tall man will grab what appears to be the lighter load, while the weaker carriers find themselves burdened with the heavier ones. In order to avoid the terrible disorder which generally marks the starting of a caravan it is a good plan to line all the men up, or if possible to put them inside a hut at the door of which you will put a guard. Two of your boys should assort the loads; and when two or three loads are assorted, the necessary number of men should be called forward to tie them up and proceed. This will do away with a terrible amount of confusion. Although it is unlikely that a case be lost, it is a good plan to check the number of cases once in a while.

You should always be accompanied by your gun-bearers, the knapsack boy, and one or two men of confidence who will eventually be able to transmit your orders to the rest of the caravan, which in some cases will extend for a mile. At the extreme rear end of the line put one or two soldiers, with orders to never leave a load behind, and not to permit the women to pass ahead of them. If going through game country it is a good plan to send one or two trackers one-half hour ahead in order to detect the game, while you will come before the line of carriers.

When arriving in camp always keep the natives at least 100 yards away, and issue strict orders that silence be kept all the way through as soon as your light is out in the tent. The natives sleep on the ground around the fires, and they never seem to be able to sleep more than two or three

hours at a stretch. Consequently, there are always plenty of men wide awake ready to talk, and they will do it in the loudest voices throughout the night, preventing you absolutely from sleeping, unless you act vigorously at the beginning.

You will find yourself daily called upon by the natives to settle their quarrels, which you will find are always caused by women or food. You must act with great justice, but not lose sight of the native's viewpoint, which you are not called upon to modify. Before passing on any important matter it is best to have the opinion of two or three of the older men or chiefs, particularly as far as women are concerned. Some of these matters are impossible to disentangle, in which case you can always refer them to the white official, should he be three or four months march from where you are. You will also find that in most instances natives are extremely cruel to their women, and at the first sign of brutality, irrespective of who is right in the matter, you must act with extreme severity in order to avoid most repelling scenes, which you would not care to witness. You will find that once the moment of anger is gone a woman will resent thoroughly your punishing her husband, even if he has almost broken her head. You will also notice that what matters to the natives is not the size or brutality of the punishment, but the rapidity and the severity with which it is applied. In most cases you will get just as good results by having a native sit outside your tent for two hours, which will make him an object of derision, as if you should have him lashed. Once, while camping near the Ituri River, my soldiers brought to my tent a man caught stealing meat. As it was Christmas Day I felt indulgent and had the man sit outside the verandah. He claimed that he had stolen elephant meat for his child who had not eaten "for one or two months"; so my wife told me to ask him to produce the child. He said that the child was in the forest; and an hour later the natives, in great mirth, brought me his real child, which was a toothless 6- or 7-months-old baby which would never have been able to even suck the rubber-like and raw elephant meat. Not wanting to punish that man, I threw a glass of water at him, which gesture was accompanied by the laughter of over a hundred natives; and the thief felt so ashamed that he started sobbing. From that day on that man was one of my most devoted followers, and I ultimately even employed him to watch the meat and see that nobody stole it.

When traveling on pirogues, unless there is a special reason for it, always travel in the last one, so as to make sure that the natives do not tie up to the banks of the river to fish or sleep. I recall one instance when I arrived at 5 o'clock in the afternoon where I was supposed to spend the night, and my last pirogue, containing my bed and the kitchen, did not arrive until after 10 o'clock, the explanation given being that the canoe had been stopped by a herd of elephants, which never existed in that section of the country.

You will find that traveling in Africa in pirogues is one of the most fascinating things in this world. The rivers, with the exception of the Congo, are generally narrow and almost entirely covered by the tropical vegetation. The natives sing most harmoniously the old slave songs of the past, and the hours pass in a very enchanting fashion. Under no circumstances should you bathe in the rivers, which usually are infested with crocodiles, even if the natives assure you that there are no such animals in that particular river. Should you decide to indulge in a swim at your own risk, fire two or three shots toward the water, and stay in the water as short a time as possible. Never let your hand drag over the sides of the canoe in the water, no matter how cooling and refreshing this sensation may be. If you go through Mossaka you will see there a Frenchman whose hand was cut off by a crocodile in the manner described above.

(To be concluded)

## AMERICAN PISTOL-SHOOTING

By Maj. William D. Frazer. 326 pages, 5 1/4 x 8, 77 illustrations. E. P. Dutton & Co., Inc., publishers, New York, 1929. \$5.

ANYONE whose privilege it is to know Maj. W. D. Frazer personally knows that anything that the Major may undertake to do will be done surpassingly well; and so when he undertook to write a book on pistol-shooting, it was a foregone conclusion that the result would be a very valuable contribution to shooting literature.

As one of the very best pistol shots that this country has ever produced, with a national and international reputation, Major Frazer has a remarkable knowledge of and familiarity with his subject. In addition to this he has brought to bear upon the task of writing "American Pistol-Shooting" an unquestioned ability as a teacher, and as a writer as well. This is evident in every page of the book, which from beginning to end is as clear and simple as A B C, and, withal, unusually thorough and exhaustive.

"American Pistol-Shooting" is exactly what its name implies—a book on *pistol-shooting*. The whole science and art of shooting a handgun are discussed and analyzed as never before. Everything, down to the smallest detail, is critically examined and thoroughly and simply explained. Nothing which does not bear upon the actual use of a pistol or revolver is given place in the book; nothing that does is omitted. Take, for example, the chapter on Shooting Psychology. Here is a subject which, so far as we know, has never before received more than passing attention, yet every shooter of experience and ability realizes how intimately this matter of psychology is bound up in all of shooting, and especially pistol-shooting. Major Frazer recognizes its vital importance, and devotes nineteen pages to it. The mere reading of this chapter, with its clear explanations of what makes our minds and nerves "act up" the way they do at times, makes one feel better, while its careful study, and the application of the principles and suggestions given, should enable anyone largely to overcome those obstacles of the mind and nerves which, though



hidden and unseen, so frequently drag down to bitter defeat what had otherwise been a brilliant achievement.

It makes no difference what particular phase of pistol-shooting one may be interested in, he will find it thoroughly discussed in Major Frazer's new book. The basic principles underlying all pistol-shooting are first considered, and then the various different special types of shooting are taken up.

A few suggestive chapter headings are: Free-Pistol Shooting; Aerial Practice; Defensive Shooting and Quick Drawing; Suggestions for Police Officers; Exhibition Shooting; Competition Shooting; Coaching and Team Work; On Instructing Ladies; Game-Shooting; Holsters for Shooting; etc.

Much more could be written about this new book, "American Pistol-Shooting," and still not do it justice. Pistol enthusiasts are going to buy the book on Major Frazer's reputation, if nothing more. And what a treat is in store for them!

LAURENCE J. HATHAWAY.

### MY FIRST BIG-GAME HUNT

(Continued from page 20)

caught sight of a fine, large mule deer, which I killed with one shot. We at once dressed it and carried it back to camp.

The next morning we made an early start, intending to climb up to where the caribou had their feeding grounds; but before we had gone a mile we ran across three deer, two of which we shot, cleaned, and packed back to camp. As it was then too late to go after the caribou that day, we went up Hall Creek a way and did some panning, as there was more or less gold in the sands of this creek.

Time was passing, and I had not yet secured my caribou head; so early next morning we left camp fully determined that we would get one before night. We had already shot all the deer the law allowed us; so would pay no further attention to them. Following the pack trail some 2 miles from camp, till we came to a small creek flowing down the mountain on the west, we left the trail and began our climb toward the land of the caribou. The underbrush was dense in places, while the devil's clubs kept sticking their little needles into us; but we kept right on climbing, and shortly after noon came out on a long flat stretch of ground. Here we ran across signs of caribou; so after eating some sandwiches we had brought along, we began searching for the herd, which we knew must be somewhere in the neighborhood.

We searched the mountain side until almost dark. Tracks we could find, but no animals. Then, just as we were starting for camp, we ran across a young buck caribou. The head was nothing to speak of, but we shot it for the meat. It was, however, too late to attempt to take the meat into camp; so hanging the carcass up in a tree, we set out for camp, which we reached shortly after dark, tired and hungry. It was the work of but a few minutes to get a good fire going, and supper was soon on the table.

After supper we cleaned and oiled our rifles, and retired to our bunks to get a good night's rest. Next morning we were up bright and early, breakfasted, and put up some lunch; then started up the hill to get the caribou I had shot the day before. Going up the trail we ran across the tracks of some twenty-odd caribou which had passed within 75 yards of the cabin the day before while we were up the hill hunting for them. As some of the tracks were of great size I was for following them, but Art said that it would be of no use, as they would now be miles away. Evidently we had scared them away from their old feeding grounds the day before, and once they started to move they would not stop until they were well out of danger.

We made the trip to the carcass in quick time, and soon had it cleaned and ready to take back to camp. Swinging it on a pole, the two of us managed to carry it; though by the time we reached camp it seemed to weigh a ton.

No caribou were seen on the trip, and Art said that there was little use in hunting any further for them in this district at present, and as time was limited I decided to return home. My man had just returned from his hunting trip that same day, and I thought myself very fortunate to have worked in a hunting trip such as I had enjoyed without having lost any time in doing so.

### MORRIS STILL LEADING RIFLEMAN TROPHY MATCH

(Continued from page 28)

memberships, subscriptions, and entries are forwarded, together with the required Trophy Match entry blank.

In addition to the two handsome trophies, numerous other prizes, including gold pieces, merchandise, and life memberships, are to be awarded upon conclusion of the match at the end of the calendar year.

With the annual program of N. R. A. Gallery Matches now in full swing, club secretaries have an excellent opportunity to boost the standing of their clubs by forwarding both individual and team gallery match entries to count for points in the Trophy Match.

Interested club secretaries and members of such clubs whose outfits are not entered in the Rifleman Trophy Match for 1929 will be glad to know that the "match" is an annual event and that entries in the 1930 competition will be accepted, beginning January 1. There is no entry fee, and entry blanks, together with detailed conditions, will be cheerfully furnished club secretaries upon request. If your club is already entered, you will want to help boost its standing during this final month; or, if your outfit has not competed in the 1929 Rifleman Trophy Match, do what you can to insure its being among the 1930 entrants.

Standing of the leading clubs follows:

1. Morris Rifle Club, Morris, Minn. ....	242
2. Westric Rifle Club, Chicago, Ill. ....	202 1/2
3. East End Rod and Gun Club, Turtle Creek, Pa. ....	141
4. Burbank Rifle and Revolver Club, Burbank, Calif. ....	139 1/2

5. Junior Mechanics Rifle and Pistol Club, Taft, Calif. ....	133
6. Rippowam Rifle and Gun Club, Stamford, Conn. ....	87
7. The Lincoln Rifle and Revolver Club, Los Angeles, Calif. ....	84
8. Palo Alto Rod and Gun Club, Palo Alto, Calif. ....	75
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10. Roberts Island Rifle Club, Stockton, Calif. ....	70
11. Lincoln Rifle and Pistol Club, Lincoln, Neb. ....	64
12. Sioux Valley Rifle Club, Akron, Ohio ....	63
13. Sterling Rifle Club, Sterling, Colo. ....	61
14. Department of Street Railways Gun Club, Detroit, Mich. ....	60
15. Ogilvie Rifle Club, Ogilvie, Minn. ....	56

### DISCREPANCIES IN SWISS SCORES WERE TYPOGRAPHICAL ERRORS

CERTAIN irregularities in the Swiss scores for the 1929 Internationals, as published in connection with the article by C. B. Lister, November AMERICAN RIFLEMAN, were typographical errors and do not change the individual Swiss aggregates nor the Swiss total score.

The discrepancies were: Reich total standing score as given 390, should be 330; Lienhard, third string, kneeling, as given 98, should be 91; and Zimmerman, first string prone, as given 99, should be 97. The individual aggregate scores as given are correct, as is the Swiss record total of 5,442 for the match.

The purpose of this notice is to clarify the misleading discrepancies as noted, which, needless to say, the RIFLEMAN sincerely regrets.

### STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

OF THE AMERICAN RIFLEMAN, published monthly at Washington, D. C., for October 1, 1929. City of Washington, District of Columbia, ss.:

Before me, a Notary Public in and for the District aforesaid, personally appeared Laurence J. Hathaway, who, having been duly sworn according to law, deposes and says that he is the Editor of THE AMERICAN RIFLEMAN, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, National Rifle Association of America, Washington, D. C. Editor, Laurence J. Hathaway, 816 Barr Building, Washington, D. C. Managing Editor, C. B. Lister, 816 Barr Building, Washington, D. C. Business Managers, Executive Committee, National Rifle Association of America.

2. That the owner is: National Rifle Association of America. No stockholders.

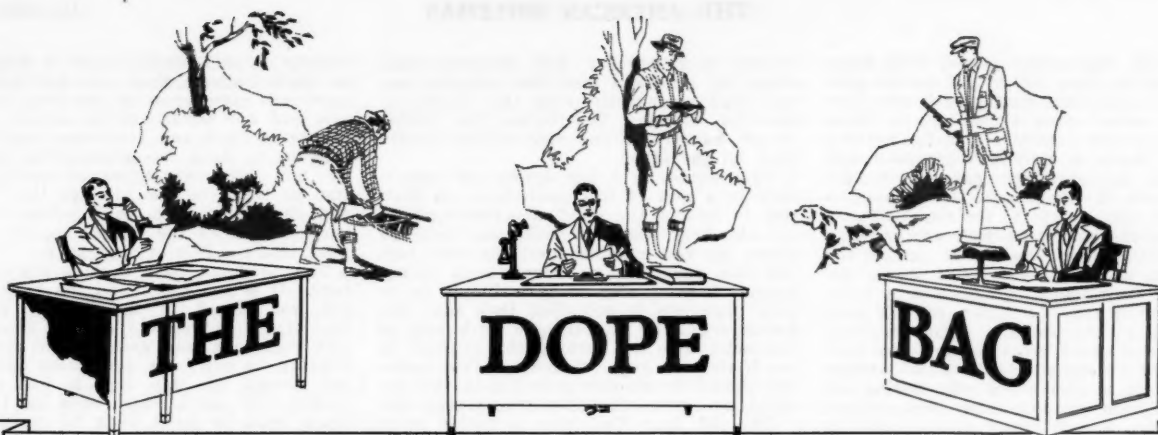
3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest, direct or indirect, in the said stock, bonds, or other securities than as so stated by him.

LAURENCE J. HATHAWAY, Editor.  
Sworn to and subscribed before me this 8th day of October, 1929.

(Seal) HELEN A. LOSANO,  
Notary Public.  
(My commission expires Sept. 10, 1933.)





RIFLES AND BIG-GAME HUNTING: LT.-COL. TOWNSEND WHELEN

SHOTGUNS AND FIELD SHOOTING: CAPT. CHARLES ASKINS

PISTOLS AND REVOLVERS: MAJ. J. S. HATCHER

EVERY CARE IS USED IN COLLECTING DATA FOR QUESTIONS SUBMITTED, BUT NO RESPONSIBILITY IS ASSUMED FOR ANY ACCIDENT WHICH MAY OCCUR.

**A Free Service to Target, Big Game and Field Shots — All questions answered directly by mail**

## On Selecting a Handgun

By J. S. HATCHER

I WANT a side arm of good accuracy, range and considerable power. Being plenty green on the subject of handguns, I can not decide what I want, mostly because I have never handled the guns I am going to mention. It seems that after studying a catalogue page I decide I have found what I want; then when I study another page, I begin to think differently, etc.

1. What groups can be expected, at 50 yards, of the Officers' Model Colt .38 Special, 6-inch barrel, of the .38 Colt auto., 6-inch, and of the .30 Luger, 6-inch?

2. Is the Luger liable to jam oftener than the Colt?

3. Do the stationary sights on the .38 auto. mean that this arm is not intended for, nor adaptable to, accurate shooting at long range?

4. I remember reading a criticism of the .38 auto. which lauded the cartridge, but claimed the gun was awkward to handle because the grip was not shaped correctly. Is there any truth in this?

5. Will you compare the respective merits of the arms mentioned?

6. Is the Luger as good as the .38 auto. in quality of steel, accuracy in fitting of small parts, etc.?—J. S.

Answer (by Major Hatcher). I will answer your questions by number:

1. The Colt Officers' Model .38 is one of the most accurate guns made. It has adjustable target sights, and is, therefore, suitable for the finest kind of target-shooting. The groups that you could expect from it would, of course, depend largely upon how well the gun was held. Assuming it was held perfectly, you would probably get a 2-inch group at 50 yards. The Colt .38 automatic is not a target gun, but is what is known as a military gun. Therefore, the sights are not adjustable. This gun is very accurate also. I would think that if it were perfectly held, you might get a 3-inch group at 50 yards. Groups with the .30-caliber Luger would perhaps be 6 inches. Some would do better and some worse, and also the ammunition for these guns is variable, so that this would depend somewhat upon the ammunition used as well.

2. I consider the Luger more liable to jam than the Colt. Years ago it was tested

by a board of officers for possible adoption by the Army, and they also found that it was not as reliable in functioning as the Colt, which was tested at the same time.

3. The fact that the Colt .38 has stationary sights merely means that it is of the military type, and adjustable sights are not used on account of the danger of their getting knocked out of adjustment. You will find the same is true on many highly accurate guns, such as the Colt New Service.

4. It is quite true that the .38 automatic cartridge has very fine ballistics, and the gun which is shown in the old catalogue is quite out of date. However, the Colt company has just recently placed on the market a new improved .38, known as the "Colt Super .38 Automatic," which removes all of these objections to the old-style .38 automatic. I am enclosing a description of this new gun.

5. As to the relative merits of the three guns, I should say that the revolver has the advantage of being a highly accurate target revolver of the type chosen by expert marksmen. It is a wonderfully good gun from every point of view. The .38 Colt automatic is a more powerful gun than the revolver mentioned above. It has a higher muzzle velocity and will shoot with less drop of the bullet at longer ranges. The .38 automatic has the greatest penetration of any hand firearm. It also has the advantage that the barrel is quickly and easily replaceable, so that if the barrel becomes worn, a new one can be put in with very little expense and without sending it to the factory. This automatic is much cheaper to buy than the Luger. The .30-caliber Luger has the advantages of fine balance and comfortable grip. It is reasonably accurate. It has a high-velocity bullet which has a flat trajectory, and therefore shoots as well at long ranges as the .38 Colt automatic. Some of the disadvantages of this gun are that the caliber is smaller; therefore, it does not have the power that the .38 does. It is a foreign gun and is very expensive to buy. The parts in it are not as readily interchangeable as the Colt, and it is difficult to get new parts. The barrel can not be replaced by the user. The gun is not as reliable as the Colt as to function.

6. Leaving out of consideration the very poor Lugers turned out just after the war, I will say that some of them are just as well fitted as the Colt guns, and are, perhaps, even more closely fitted. One of the very important features of the Colt gun is the fact that the design is such that very close fitting is not necessary or desirable.

### THE 20-GAUGE ON DUCKS

I HAVE a 20-gauge Lefever Nitro Special shotgun and would like your advice as to its effectiveness for close and medium range duck-shooting.

It seems to be a dandy little gun for upland shooting; but I have heard that 20-gauge guns do not have range and penetration enough for ducks.—A. C. J.

Answer (by Captain Askins). The 20-gauge is not as good a duck gun as the 12, but won't fall more than 10 yards behind the larger gun. Twenty-bores will kill ducks very well, using an ounce of No. 6 shot, up to 45 yards, and most of our duck killing is done under that range.

### AN INSTANCE OF EXCESSIVE PRESSURE

I AM enclosing herewith .270 Winchester shell that I thought you might be interested in seeing. The rifle was left with a gunsmith friend of mine here in town to be opened up. Being locked shut, the rifle had to be opened up with a block of wood and a hammer. This cartridge was the first fired of a magazine of cartridges. Probably the fellow had greased the bore and set the rifle away and forgot to remove the grease from bore and chamber before firing. Could this have caused anything like this?—A. L. B.

Answer (by Colonel Whelen). I was very much interested in seeing the .270 W. C. F. cartridge case which you sent me. It is very typical of a case that has been fired with a pressure of between 85,000 and 110,000 pounds. What caused that high pressure we can not determine. It may have been a bore heavily coated with grease as you surmise. It may also have been an excessive powder charge through an accident in the loading room. It may have been a bullet entirely too large for the bore. At any rate it speaks very well for the rifle. It is just exactly what we would expect to find from this rifle. The Winchester Model 54, the Remington Model

30, and the Springfield Model 1903 rifles with receivers over No. 800000 do not give way when a cartridge having such excessive pressure comes along about once in three or four million rounds. Usually nothing happens except a little gas comes to the rear and the cartridge case is welded pretty tight in the bore. Occasionally a lot of gas may escape to the rear and may rush into the magazine well and, coming out, may splinter the stock under the magazine, or may even bend down the magazine floor plate, and once in a while the extractor may be blown off, all with no injury to the shooter. The receivers and bolts of these rifles do not give way. Last week I fired a .30-caliber M1 service cartridge in a Springfield rifle having another 172-grain boat-tail bullet firmly seated in the bore 1 inch ahead of the point of the bullet in the cartridge. Nothing at all happened to the rifle except the bolt had to be opened with a mallet. The cartridge case looked almost exactly the same as the one you sent.

#### .41 DERRINGER OR .25 AUTOMATIC?

PLEASE let me know if you consider the .41-caliber Derringer as effective at short range as the .25 Automatic.—H. H.

Answer (by Major Hatcher). Replying to yours of April 29, I believe that the .41 Derringer is more effective by far than the .25 Automatic Colt should a person actually be shot by this gun at short range.

However, as for a gun to carry for defense, I prefer the .25 Colt. The moral effect of this little gun is probably greater than that of the Derringer. While it does not have the knockdown blow the Derringer has, it is capable of inflicting a fatal wound, and it gives you a number of shots to command, whereas the Derringer gives only two. Moreover, the Automatic is more accurate than the Derringer and the ammunition is more reliable.

#### WHAT THE BULLETS TELL

I AM sending you some samples of lead bullets for a .38-caliber Colt double-action revolver. These bullets are the .38 long and not .38 special. They were shot into a sand bag. Can you look at them and tell me if the rifling is worn too much for accuracy? You will notice that one of them has not been shot. I only sent it for comparison. One of the two shot ones (longest one) is of the W. R. A. make; the other one is a Peters.

If the gun is worn out I do not want to waste money shooting it. The unshot bullets will drop through the barrel without taking the rifling. Does the hole in the rear end cause it to expand and take the rifling?

The small bullet is a .22-caliber long rifle Winchester stayless, and was shot with a Winchester Model 90 pump action repeating rifle that has only been shot 1,500 times. The rifling marks look weak to me. Is this all the dent that a .22 rifle is supposed to do, or has my gun worn out? Does cleaning my gun from the muzzle end tend to wear out the rifling?—W. B. H.

Answer (by Major Hatcher). The two .38 long bullets that you sent have been carefully examined. These bullets show sufficient engraving of the rifling on them to indicate that the barrel is not seriously worn. As far as the barrel is concerned, you should be able to get accuracy out of this gun.

There is one thing, however, that does show up on these bullets, and that is that the engraving of the rifling extends farther along on one side of the bullet than

it does on the other. This indicates that when the gun was fired the cylinder was not lined up exactly with the barrel, so that in entering the barrel the bullet struck harder on one side of the barrel than on the other.

This would be a big source of inaccuracy in a gun of this character. In fact, this is one of the chief disadvantages of the old Army .38. It never was good on lining up the cylinder, and for that reason the accuracy was sometimes rather poor. A good way to test this is to be sure your gun is unloaded, then snap the hammer holding the trigger back and at the same time try turning the cylinder to see if there is any lost motion. The cylinder should be absolutely locked in this position and no motion should be perceptible.

The .38 long Colt was a bullet made somewhat smaller in diameter than the barrel, and the pressure of the gas in the hollow space at the base of the bullet is what forces it into the rifling.

The .22-caliber bullet that you sent does not show satisfactory engraving of the rifling. A normal .22-caliber rifling should make a much deeper groove than that. The chances are that your .22-caliber barrel is worn badly. The best way to determine if the rifling is worn is to fire several shots at a cardboard or paper target some distance away and see if the holes made are perfectly round. If the barrel is badly worn, it will even be what is called a "keyhole"—that is, the bullet will hit sideways.

Cleaning the gun from the muzzle will not wear it enough to damage the accuracy.

#### SOME GOOD DOPE ON PACK SACKS

I SPEND part of every summer in the mountains of Colorado where I frequently go on little excursions on foot with a friend or two. I would like to find a pack sack that is not so large as to be unwieldy or cumbersome but large enough to contain the necessities of a two-day trip, such as blanket, cape, rations, ax, and extra clothing. I have in mind three: the Nessmuk pack sack (Von Lengerke & Antoine), the Red Head pack sack (page 84, June, 1929, "Outdoor Life") and one mentioned in "Trail Hints" (June, 1929, "Outdoor Life"). This latter one is built on the same plan as the one you use, isn't it? It seems a little too large to me for use on such short trips. The Red Head looks as if it would weigh too much for what it would hold. I do not like the web shoulder straps, either. I would like your opinion as to which of these pack sacks you believe is best suited to my needs. Also, if there is any other pack sack which you believe to be superior to these three, I would be very glad to know of it.

I have a copy of your book, "Wilderness Hunting and Wildcraft," and think that it is very interesting and instructive. In it you recommend carrying a stag shirt instead of a sweater, as does Horace Kephart in "Camping and Woodcraft." I have been able to find advertisements of only two—Filson and Hirsch-Weiss. Would either of these be satisfactory in the Rockies during the summer-time? They seem to be coats instead of shirts. Are they the type you referred to in your book?

I will regard anything that you might say concerning these articles as strictly confidential.

P. S.—Perhaps it will help you in making suggestions about these pack sacks to know that I am 18 years of age, 5 feet 9 inches in height, and weight 130 pounds.—S. R. M.

Answer (by Colonel Whelen). A great

variety of pack sacks, most of which are no good because they are not based on years of experience in packing, are for sale and are advertised in various places. Wherever hard and continuous and heavy packing is done by professional packers, we find just two types of packs used. One of these is the Alaskan back board, and the other is a pack which is variously known as the Minnesota, the Northwest, and the Poirier pack sack.

The Nessmuk pack sack is not satisfactory. It is too small and the pack straps are not placed in the correct position. The Red Head sack I do not know. My own ruck-sack was designed primarily for hunting, to carry the equipment one would use during the day, and it has a large pocket with gores which open out to carry game head or meat back to camp. It is not a satisfactory pack for steady or heavy packing.

The firm of C. C. Filson Co., 105 First Ave., Seattle, Wash., make a very good type of the Alaskan pack board called the Trapper Nelson Pack Board. Their catalogue describes it quite fully. The larger, or No. 3 size, is the one which you should obtain, and cost \$7.50. The bag which comes with it is of very little use. The load is usually wrapped up in a tarpaulin or tent and roped to the pack board. It is perhaps the best pack for steady, long, and heavy packing, but is not as satisfactory as the pack sack for the kind of work you have in view.

I think the best pack for your use is the Poirier or Western pack sack. It is large enough to contain inside it a blanket, rations, extra clothing, and small cooking utensils. It is used all over the Northwest, particularly in British Columbia, and in Ontario, where they do a large amount of packing. It rides well and easily and is equipped with a good tump line, which is essential whenever you attempt to carry a load weighing over 30 pounds—that is, even although you do not use the tump line all the time, you need the tump line to ease up on the shoulder straps at various times during the day. You will find these pack sacks advertised in a number of catalogues. For instance, David T. Abercrombie advertises one called the Northwestern pack, at \$11.30; Abercrombie & Fitch another one called the Canadian pack, at \$15.25; but the firm of Poirier Co., Duluth, Minn., make the original one. In the best grade—that is, Grade A, size No. 2, 26x28 inches—it costs \$6 and is therefore very much cheaper than the others, and just as durable. This is the one I have been using lately, and I think it is the best for your use. It is very simple but strong and durable and very comfortable when carried—in fact, more comfortable than any other pack sack I know of.

#### RELOADING THE .25-20

I AM interested in reloading and wish some information concerning the .25-20 rifle. I have ordered the "Ideal Handbook" from the Lyman Gun Sight Corporation. I understand this contains information as to amount of the charge, kinds of powders, different types of bullets, etc.

I wish to know what the saving would be on reloading this caliber of rifle, disregarding the initial cost of the tools. I pay \$1.75 a box for these cartridges here (50 in the box). By purchasing powder, bullets, and primers by the thousand would the saving be one-half?

The regular low-power cartridge for this rifle seems too heavy for squirrels, as they are torn considerably. By reloading could a lighter load be formed which would be suitable for this work?



Are secondhand tools, if they are in good condition, practically as suitable for reloading as new ones; or would it pay to buy unused tools?

I thank you for answering my inquiries regarding sights and the accuracy of the Savage Sporter.—J. H. V.

Answer (by Colonel Whelen). Relative to reloading the .25-20 cartridge, and the cost of the same, may I refer you to "Outdoor Life" for September. In it you will find an article of mine covering the cost of reloading pretty thoroughly. The various charges and all information are given complete in the "Ideal Handbook."

In .25-20 caliber the average cost of factory cartridges is \$3.68 per hundred. Assuming that you fire the factory cartridges in your rifle, and then reload the fired cases, the cost of reloading, not counting the original cost of the reloading tools, can be calculated from the following: Powder costs about \$2 per pound of 7,000 grains plus the transportation from Delaware—in your case not much. Jacketed bullets average 90 cents per hundred. Non-corrosive primers—you can get Kleanbore from Belding & Mull, Philipsburg, Pa.—cost \$3.80 per thousand. The acids to clean fired cases cost about \$1, and these acids will last about a year and clean perhaps 2,000 cases. The actual cost of reloading thus depends upon the number of grains of powder which are contained in the particular load you select (see "Ideal Handbook"). But I think you will find that the average cost of reloading with these components is about \$1.68 per hundred rounds. Thus there is a saving of about \$2 per hundred rounds.

But this saving is not actually true because you must use noncorrosive primers (see enclosed memo on the .25-20), and noncorrosive primers make the brass cases brittle, so that they can not usually be reloaded more than three or four times before they split or crack. Therefore, you do not get quite so much economy in the long run because you have to buy factory ammunition or primed cases oftener than with other larger cartridges owing to the cases becoming brittle. With larger cartridges you could use nonfulminate primers, and your fired cases would last for many reloadings. But with the .25-20 cartridge you simply must use the noncorrosive primers or else your barrel will be ruined in short order, and noncorrosive primers make the fired cases brittle.

The factory cartridges are, perhaps, a little too powerful for squirrels, and they tear them up pretty badly. I would suggest that you try the 60-grain Hi-speed bullet with a very light charge of Hercules Bull's-eye powder. The "Ideal Handbook" will point the way. Be sure you use a very light charge. See the use of Bull's-eye powder in very light gallery loads for the .30-06 rifle. I have not tried such a load, nor do I know anyone who has, but I think it promises pretty well, and it will be a nice little piece of original investigation for you.

Secondhand tools, if they have been well taken care of, are as good as new tools, except the muzzle-resizing dies wear a little with time.

#### CONCERNING ACCURACY OF COLT SUPER .38

So MUCH has been written from time to time in the columns of the RIFLEMAN relative to the sacrifice of accuracy, which seems to accompany increase of velocity, that I make bold to inquire if the Colt .38 Military Automatic can be brought into the target class by using a longer, heavier

bullet, preferably cast, and a correspondingly less velocity. Would the .38 Special bullet be a wise selection? I would be glad to know how far others have gone in this direction.—F. M. D.

Answer (by Major Hatcher). I do not know of anybody who has experimented with trying to make a special accuracy load for the .38 Colt automatic.

The barrel in the .38 automatic is the same as that in the .38 Special, except that the .38 automatic is .002 of an inch bigger in bore and groove diameter than the .38 Special. This indicates that the .38 Special bullet would be O. K. as for diameter in the .38 automatic gun. There is, however, another factor to be considered, and that is, length of the cartridge to go into the magazine. The bullet of the .38 Special is much longer than that of the .38 automatic; therefore, if loaded into the .38 automatic cartridge it would prevent cartridges from being put into the magazine.

In general, jacketed bullets give somewhat greater accuracy than lead bullets. Everything considered, I doubt if you would gain much in accuracy by making this change.

I would say that some of the ammunition now being put out for the .38 automatic is very accurate, indeed. A recent load of the new Remington Kleanbore showed group diameter of about 7½ inches at 100 yards, which is certainly very fine accuracy.

#### CORROSION IN RIFLE BARRELS, AND OTHER MATTERS

I HAVE not bothered you for some time with foolish questions, but during my silence I have read your articles with great interest both in "Outdoor Life" and THE AMERICAN RIFLEMAN and I want to say that you certainly are doing the shooters of the country a great service. Particularly do I admire your stand on the B. & M. scope with T. H. mounts and D. C. adjusting screws mounted on the .30 Remington Express as being the right scope for the rifleman-hunter, despite some open criticism from other authorities. The more I see of this combination the more determined I am to own one some day. For the present all of my shooting is with iron sights, for I have not yet learned to "hold 'em and squeeze 'em" the way I want to.

I have been shooting the Whelen small-game load, viz., 18 grains of No. 80 and 150-grain, old service bullet, in my Springfield Sporter, using these cleaning methods: chloroil on brass bristle brush, then swabbing the bore with a rag wet with chloroil, drying bore thoroughly, then using Hoppe's No. 9, leaving rifle overnight with Hoppe's No. 9 in bore and swabbing out next day with dry rag.

After nearly two years, during which time I have shot about 2,500 rounds of Whelen loads and perhaps 500 old service full-power loads, I find the bore badly corroded. I have cleaned the rifle religiously, never letting it go over five hours after shooting. I have used Frankford Arsenal primers and Remington No. 9½ (nonmercuric) primers. I was quite surprised to find the bore corroded so quickly, as I have read all I can find on reloading and did not hear of any complaints from others.

My theory is that the powder charge does not dilute the priming acids as do full-power loads and the barrel went the way of the .32-20. Of course I value your opinion above any other, hence this letter. What do you think causes the trouble?

After deer season this year I am going to send this rifle barrel and action to Springfield Armory for a new barrel; then I

thought I would try to get the new non-corrosive primers to load with thereafter to prevent a recurrence of this trouble. I like this load very much, and thought I would continue with it or 18 grains of No. 80 behind the Squibb bullet, which would give higher velocity. It was my intention to use both these loads almost entirely in my Krags and Springfield, as they suit both my requirements and pocketbook.

Without putting you to a too-lengthy reply I would like to have you comment on my selection as regards barrel life.

Should I take the Springfield fixed stud off my barrel before sending to Springfield Armory? Is it soldered in place or just pinned and keyed? Which direction do you drive the feather key?

I suppose you have answered those questions a good many times. I have read both "Modern Gunsmithing" and "Amateur Gunsmithing," and made a good many notes from both, but I failed to make any on this front-sight-removal question, and as the books were both borrowed I have to bother you for the information.

I have been trying to get a Krag from the D. C. M. that has a fair barrel, but I haven't had much luck so far. The last one looks like the one they fished out of the Pasig River and I wonder if those at Benicia rusted worse. I thought about having one shipped from an Eastern arsenal next time but I guess it's just chance. I have been considering having a Krag rebarreled by Niedner or Sedgley, using the Springfield caliber-.30 barrel, same outside dimensions as .22-caliber barrel as quoted in the D. C. M. price list, and having it chambered for the pointed bullets like the Squibb. Could I have the barrel sent direct to Niedner from the D. C. M. without having an order from Niedner?

Does the B. & M. Sporter stock fit the Model 1917 Springfield (Enfield)? Under the heading, "Spare parts for Springfield caliber .30," what part would one purchase to replace the cocking piece where the notch that engages the sear had been filed or ground down too far?

Why couldn't cast bullets be copperized so as to eliminate greasy lubrication? This would seem to be a cheap process as I note that .22-caliber bullets so treated sell at the same price as those using lubricant. Bullets so treated would not be so easily deformed by hardened fouling in the barrel; and then, too, there wouldn't be so much fouling, either. Would such a process be practicable by the hand-loader?

Copper-coated bullets, like the Squibb, that do not require sizing, would certainly speed up hand-loading; and with the non-corrosive primers our barrels should last a lifetime.

Answer (by Colonel Whelen). When we say that a Springfield barrel is accurate to, say, about 5,000 to 6,000 rounds, we do not necessarily mean that it will remain in perfect condition for that long. When we shoot a barrel for a considerable period of time in the service or conduct an erosion test with it, we find that apparently but little wear can be noticed on the barrel up to about 1,000 rounds. Then the lands at the breech begin to dull a little bit. After about 1,500 rounds, the throat gets quite rough, and after about 2,000 rounds, it begins to darken, and the whole bore apparently is very much rougher in its appearance, and it might be called slightly pitted.

After about 3,000 rounds we begin to note a falling off in accuracy at 1,000 yards; but can notice little difference at 200 or 500 yards, and after about 5,000 or 6,000 rounds we begin to distrust the rifle, because we think that occasionally it gives



a bad off shot, but sometimes it will still continue to shoot pretty good groups.

Now, I imagine that your barrel has gotten to the point where it is beginning to get rough inside, and, therefore, you think it is worn out. If, however, you can stand that roughness, you will probably find that you are only about halfway through the accuracy life.

It is true that there is a certain trouble with corrosion from the use of a chlorate primer with a small powder charge, even in .30-06 cartridges. Such a cartridge, however, does not give one-tenth of the trouble from corrosion that is given by a .25-20 cartridge with smokeless powder and the old chlorate primer. You could get away from a great deal of this trouble by using a noncorrosive primer, but you would also find that with a noncorrosive primer your cartridge cases would only stand reloading about three or four times, because the large amount of mercury fulminate in all nonmercuric primers renders the cartridge cases brittle.

You do not need to take the fixed stud off your barrel before sending your barrel and receiver to Springfield Armory. The new barrel will have the fixed stud on it. You will want to send both your receiver and your bolt.

At the price that the Krag's are sold, there can, I am sorry to say, be no selection as to the barrels or actions. Niedner can make new barrels for the Krag, but it costs about \$30. You can get the .30-caliber sporting barrel from the D. C. M., and the D. C. M. will ship it direct to Niedner for your account, and then you can have Niedner cut off the thread and thread it for the Krag and rechamber it. That is the best method.

The B. & M. Sporter stock will not fit the Model 1917 rifle, because the guard and magazine of the 1917 are very much larger and deeper than those of the Remington Model 30.

For the Springfield rifle, when the notch which engages the sear has been filed or ground down too far, you should obtain a new cocking piece and firing pin rod.

I do not know of any attempts to use a copper-coated lead bullet at high velocity. It might be possible to make bullets in this manner, but I hardly think it would be economical, because in order to plate a jacket on heavy enough, they would probably have to remain in the plating bath for such a long time that the cost would be greater than for bullets jacketed in the regular manner.

The probabilities are that bullets could be copperized by an amateur who is quite a bit of an electrician and who is willing to install an equipment which would probably cost \$200 or \$300.

#### CLEANING SHOTGUN BARRELS WITH STEEL-WOOL—SHOT WELDING TOGETHER

Will fine steel-wool injure the bore of a shotgun? Is it O. K. for taking out lead from the barrels? Would you use oil on the wool, or not? What causes small shot sometimes to weld together in patches? Which is best, light pressure or heavy on shot wads?—J. C. H.

Answer (by Captain Askins). The fine steel-wool will not hurt a shotgun, and if the wool is fine enough will simply polish out the tubes. Loosen up the residue, which may be lead, with dry wool, then swab out with cloth, and the second cleaning with the wool; use it over an oiled rag.

Small shot stick together primarily because they are too soft to stand up under the pressure. There may be other reasons, as a shell too short or too long for the

chamber, an overload of powder, or a faulty cone. Usually this shot-welding takes place in the breech of the barrels, either right, in the case of forcing the crimp, or in the cone just after leaving the case. A reduction in powder charge usually helps. The custom is, perhaps, to load fine and soft shot with precisely the same powder charge as large chilled shot. This is done as a matter of factory convenience; but the hand-loader need not do it. If the shot are finer than 8's, nothing can give them much range anyhow, and they had as well be started at such a speed as will throw the best patterns.

No rule can be given as to the pressure to be placed on the wads. It would depend on the powder and on the amount of shot that is loaded on top of that powder. If the powder is too quick for the load, that means a fast-burning powder with a heavy shot charge on it; then wad pressure had better be light. On the other hand, such powders as are known or called progressive, may require a good deal of wad pressure in order to bring them to a burning pressure promptly. Best patterns are often secured from light wad pressure and light crimp; but it is suspected that this is accomplished at the expense of velocity.

#### WANTS GUN TO SHOOT LESS CLOSE

I HAVE recently purchased a 12-gauge, 28-inch barrel, full-choke, raised-rib Browning automatic shotgun, after having tried about all the other types of guns on the market. This gun just about fills the bill as far as fit, etc., is concerned and as far as I am concerned, with the exception of one thing, and that is this: I travel quite a bit and want something as near universal as possible, so as not to make it necessary for me to carry excess weight in extra barrels or another gun. This gun I have shoots very close—about 78 or 80 per cent, which, of course, is too close for birds or rabbits, but fine on ducks. Now the question is this: could I have this gun opened up, and if so to what extent so as to make it satisfactory on clay pigeons (which I shoot a lot), ducks, rabbits and quail?

I notice in some of your articles you do not recommend the use of "brush" loads, and from pattern tests I have made I do not think much of them myself.—R. L. K.

Answer (by Captain Askins). If you could have some cartridges handloaded to order you might get brush shells that would suit that full-choked gun of yours. The ordinary brush shell has the shot divided into three sections, which makes the pattern a full cylinder or sometimes worse than that. Now instead of dividing the load into three sections, divide it into two sections by a wad between, and the gun will do well on quail and rabbits. If you can not have this done by some gunsmith or by the United States Cartridge Co., 111 Broadway, New York City, then the only thing that remains is to have the Ithaca Gun Co., or the Brownings modify this barrel to about 60 per cent. The gun would still do very well on clay birds and ducks, and wouldn't be far wrong for quail. It doesn't cost much to do this, though the factories usually consume a good deal of time on a small job. About three minutes of work would cut out enough of that choke.

#### TO STOP SHOTGUN FROM LEADING

A FRIEND of mine has a very fine Fox double-barrel 12-gauge shotgun. The undersigned shoots a 12-gauge Winchester pump.

Just recently we both have taken to shooting the Super-X loads exclusively and find that both barrels in the Fox for about 4 inches from the chamber become leaded. We like the Super-X shells very well, but are wondering if you can assist us in diagnosing the cause of the leading in the Fox barrels. No leading, of course, takes place in the pump gun.—I. Y. J.

Answer (by Captain Askins). I have never seen any shotgun that didn't lead some in front of the chamber. Get a Marble shotgun-cleaner and be sure all the lead is out in front of that chamber when starting to shoot. Then if the gun still leads to a bad extent, take the arm to a good gunsmith and instruct him to free and bevel the cone an inch and a half forward of the chamber; maybe more than that would do no harm. Sweeley once worked on a gun like that, and wherever he noted that it was leading he took out some of the steel and freed it. This can be done with emery as a polishing process without the use of a boring reamer. A cast ought to be made of the chamber and the cone forward of it to begin with, so that the gunsmith can subsequently tell what he has accomplished in freeing the barrel forward of the cone. Micrometer measurements can be taken of the cast. Then when through have another cast made and measured, which will tell the story of what the gunsmith has done so that you can see it yourself. The Fox gun probably leads more because the chamber is tighter and breech pressure is raised a bit higher. That might mean higher velocity; but you want to get rid of the leading, so modify that cone and take the abrupt taper out of it, even if you have to extend the taper forward 4 inches. You will get it after while.

#### SOME CHEAP LOADS FOR .30-06

THE letter from B. C. regarding the use of 7.63-mm. Mauser bullets in the .30-06, which was published in the September RIFLEMAN, reminded me of some experiments of my own along similar lines, using very light, cheap, factory-made jacketed bullets.

Only one load was tried with the 86-grain SP 7.63-mm. Mauser bullets, this being principally to use up an odd lot. With 9 grains of No. 80 a 9-shot group of 1½ inches horizontal by 2½ inches vertical was obtained at 50 yards. Vertical would have been only 1 13/16 inches but for one rather wild shot. An increased powder charge would perhaps have reduced the vertical dispersion.

The 91-grain 7.65-mm. Luger bullet was used more extensively, however, as it was just as cheap as the lighter Mauser bullet and had the advantage of being slightly longer, thus fitting up closer to the rifling with the same depth of seating in the case. Using 9 grains of No. 80, some fairly good 10-shot groups were obtained at 50 yards. With SP bullets groups were as follows: 1½ x 1¼ inches, 1¼ x 1¼ inches, 1¼ x 1 11/16 inches. These groups would have been smaller but for an occasional stray shot. A 10-shot group with the same powder charge and FMJ bullets was 2½ x 2 1/16 inches, entirely too large to be satisfactory. This may have been due to some other factor, however, than the difference in the bullet. In all these loads of 9 grains No. 80 an elevation of 500 was needed to get onto the bull at 50 yards.

In an attempt to see what could be done at 200 yards with a very inexpensive load, a 10-shot group was fired using 18 grains of du Pont Shotgun Smokeless. Eight of the shots made a fairly good group of 3½ x 6 inches; the other two landed a foot or so

outside the main group, one being higher, the other lower.

The denser powders were also tried. These, when used in amounts sufficient to obtain complete burning, tended to give a very heavy report and a large muzzle flash. Trajectories were rather flat, but groups were rather mediocre in the few loads that were used. A 10-shot group at 50 yards with 40 grains of No. 16 gave a group  $2\frac{3}{4} \times 3$  inches, using an elevation of 350 yards on the service sight; 35 grains of No. 16 would not burn well, there being three hangfires in 10 shots. The report in this case was rather "husky" in quality.

Forty-five grains of No. 18 gave fairish results at 50 yards. Two 10-shot groups measured  $1\frac{1}{2} \times 2\frac{3}{16}$  inches and  $2 \times 2\frac{1}{4}$  inches, respectively. The muzzle blast was very disturbing.

An even lighter bullet was also tested—namely, the 74-grain .32 auto. FMJ. Attempts to use this bullet for very light loads with 5 grains of No. 7 and duPont Pistol No. 5, were failures, the shots scattering all over the target at 50 yards. Ten grains of these powders did better. With No. 75 one 10-shot group  $1\frac{1}{4} \times 1\frac{1}{4}$  inches; with No. 5 an 8-shot group,  $1\frac{1}{2} \times 1\frac{1}{2}$  inches, were obtained.

Using this 74-grain bullet a load of 45 grains of No. 18 gave rather better results than might have been expected— $1\frac{1}{4} \times 1\frac{9}{16}$  inches at 50 yards. If one wild shot were disregarded, this group would have been  $1\frac{1}{4} \times 1\frac{1}{16}$  inches. For this load an elevation of 100 was required to get on the 50-yard bull. The muzzle blast was very heavy.

The results of these rather sketchy experiments may perhaps be summarized tentatively as follows: (1) Short, light, inexpensive bullets of proper diameter such as the 74-grain .32 auto., 86-grain 7.63-mm. Mauser, and 91-grain 7.65-mm. Luger may be used with at least fair satisfaction in the .30-06. (2) The chief difficulty in loading is to get the bullets seated squarely and accurately in the case necks. (3) There is somewhat of a tendency toward greater vertical than horizontal dispersion of the groups. (4) About one or two shots in each group are likely to fly wild and enlarge the group considerably. (5) Large charges of dense powder are likely to cause excessive muzzle flash and blast. (6) These blunt bullets cut very fine, clean holes in paper, a desirable characteristic in target work.

I am inclined to think that some rather desirable and useful loads can be worked up with these light bullets if enough experimenting is done to obtain a properly balanced load in each case. I should be glad to hear of anyone else who has worked with them, and to find out what kind of results were secured.—W. C. T.

Answer (by Colonel Whelen). I am very much obliged for your information relative to light loads for the .30-06 rifles using pistol bullets. I am going to send your letter on to Mr. Hathaway and ask him to try to find space to publish it in the magazine. I have no doubt that it will be read with a great deal of interest by all those who reload the .30-06 cartridge.

#### "MODERN SHOTGUNS AND LOADS"

By Charles Askins, 416 pages,  $5\frac{1}{2} \times 8$ , 100 illustrations. Small-Arms Technical Publishing Company, publishers, Marshallton, Del., 1929. \$4.00.

IT GOES without saying that most of THE AMERICAN RIFLEMAN readers are interested in the shotgun as well as in the rifle, and maybe many of them hold only a secondary interest in the rifle. It is probably true that more of them are shotgun users than

handgun users. Nearly everywhere there are far more opportunities for employing the scatter gun than the rifled tube, in season or out, and in some States the shotgun is the only weapon which may be legally used for practical gunning. And yet the space devoted to the shotgun in magazine columns is proportionately meager, to say the most for it. A shotgun enthusiast is lucky to find a dozen shotgun articles a year in his official organ of the N. R. A.

Probably only one-half to eight of these articles are of a practical nature, and possibly only three or four of them contain anything he may want at the time of reading. It might be that he spends ten dollars for other shooting magazines and thus totals from fifteen to twenty practical and helpful shotgun articles per year—just enough to whet his appetite—and he is eager for more. His pet questions remain unanswered, which is attested to by the constant flow of letters and questions to the arms editors. At this rate he is paying a good price for the information; that is, after the wheat has been culled from the chaff. If he tries to preserve the entire magazine for later reference, he has the material in an unavailable form—can't put his finger on what he wants. Try it some time. If he clips the shotgun articles to save space and to avoid heavy fingering of bulky records he is worse off than before, unless he adopts an elaborate filing system, and then he finds he has some extremely odd-shaped and mighty inconvenient material to file.

The glimmer of hope in this situation is that all of this material is available in a handy form for entertainment or instruction. For convenience in reading and as a ready reference guide, it is all arranged in classified departments and indexed. The fellow who gloats over his hobby can satiate his thirst here. The persistent searcher for knowledge will be well repaid with the minimum of effort; and he who would check back against some hazily remembered fact can do so in the shortest possible time. The curious and perplexed can find that information here, instead of writing laborious letters to harassed gun editors. What I am referring to here is the published book method, and I recommend the purchase of technical or semi-technical books by reputable writers who are leading authorities on the subject of interest.

Among shotgun books, "Modern Shotguns and Loads" is the most human and instructive sample I know. It is instructive because its readers will understand many important things about shotguns and shotgun shooting that are not commonly known, even to some shotgun writers. It is human because it is written by Captain Charles Askins in his inimitable frank and homely style, and the information is authentic and reliable for the same reason. That is a big endorsement and hard to add to, but I want to give Askins and this latest shotgun book the credit they deserve. I have one grudge: It kept me up away beyond even my late bedtime, because I found it too entertaining to leave. But I learned plenty to compensate for those sleepless hours. Pride in my own following makes me reluctant to admit it, but I learned more about the shotgun than I had in fifteen years of magazine reading and eighteen years of shotgun handling.

Then in the back of the book is a 120-page treatise on the use of the shotgun, which goes into practical game-shooting so thoroughly and with so much detail that almost any imaginable question is answered about wing-shooting. This material will never appear in any magazine, because

space will not permit. Here we have a lifetime student of shotguns and game-bird shooting who can also make his rare knowledge understandable to others, giving them the benefit of his years afield with the shotgun. In the middle of the book two or three chapters on items like hand-loading and factory testing make pretty dry reading, but they are probably a necessary part of the whole and will prove useful as a reference.

F. C. NESS.

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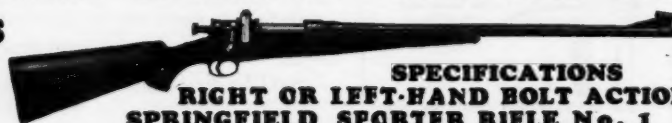
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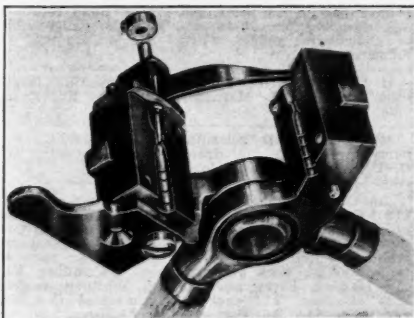
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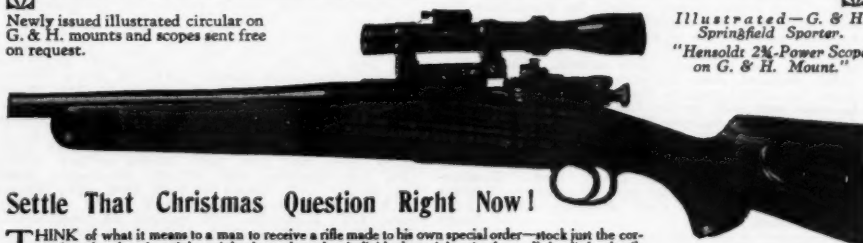
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**FOX DOUBLE, 28-inch barrels, full and modified, A. E. grade** with beautiful Heiser Mexican hand-carved case, perfect condition, \$80; Winchester Model 52, with Winchester scope, like new, \$50. D. J. Stonkus, 131 Andrews St., Massena, N. Y. 12-29

**BRAND-NEW .38 Colt Police Positive, 5-inch barrel, M. O. \$22. G. L. Ruedisuel, 1798 14th Ave., Detroit, Mich. 12-29**

**LE MARE 8X binoculars, finest and lightest glass I have had in 18 pairs, \$30; New Bond reloading tool, complete, for .30-06, \$5; B. & M. bullet-pulling attachment for .30-06, \$1.50.** E. W. Hadley, Jr., Fillmore, Calif. 12-29

**U. S. ENFIELD, .30-06, stock sporting length, good, \$10.** F. H. Mattingly, 402 Pine St., Zanesville, Ohio. 12-29

**MODERN-BOND reloading tool, Model C, with parts for .30-06, .38 Special, .45 automatic, \$17.** C. D. Wild, Janesville, Iowa. 12-29

**.36 COLT 7 1/4-inch, good, \$15; another, .36, fair, \$12; R. Adams pistol, double-action .45 percussion, good condition, oak case, all accessories, \$15; Cane gun .410 English, \$20; Cane gun 7-mm. shot cartridge, Belgian, with 50 cartridges, \$16; rare antique walking stick air gun about .34 caliber, \$25; .58 Harpers Ferry and .58 Eli Whitney muskets, both excellent, \$12 each; .31 converted Colt, fair condition, \$4; .36 Colt moulds, \$1.50; .32-20 and .44-40 tools and moulds, Winchester make, \$3 set; round-ball moulds, 23 sizes, 75 cents each. Stamp please. W. J. Liddell, 506 1st Ave., W., Seattle, Wash. 12-29**

**OLD MODEL ITHACA, 12- and 20-gauge, Field, \$25; No. 2E, \$50; Model 40 Savage .30-06, \$25; Winchester 54 B. & M. scope, \$75.** All excellent. WANT—Telescopes, issue Springfield, old violin, or what! Fred Johnson, Seneca, Ill. 12-29

**WORLD-WAR RELICS, special list** by Young, price 10 cents. Get it now! H. Young, 175 Washington Ave., Belleville, N. J. 12-29

**HOFFMAN 404 Magnum rifle** in special leather case, as new, cost \$275, for \$150; Stevens Schuetzen target rifle, 32-40 octagon Swiss butt, extra fine Circassian stock, cheek piece, windgauge, peep sight, very fine condition, \$50; 2 Steyr-Mannlicher rifles, 5.6-mm. and 8-mm., as new, \$50 each. Shipped by express, O. O. D., privilege of examination, on receipt of 10 per cent, refunded if not pleased. National Camera Exchange, 5 S. 5th St., Minneapolis, Minn. 12-29

**USED MIRAKEL 7-power pocket prism binocular, \$20 and \$26.** J. Alden Loring, Box AR, Owego, N. Y. 12-29

MARLIN, Model 39, .32-caliber, fair condition, shoots accurately, Lyman 1A rear sight, \$10. H. T. Herrick, The Chastleton, Washington, D. C. 12-29

ONE SAVAGE 22 Hi-power model 99G, Marble peep rear and Stevens scope, also folding-leaf sight, inside first class, trifle worn outside, \$60; Winchester 1894, .32 special, half magazine, Lyman peep rear, bead and post front, Stevens scope with offset mounts; set Winchester reloading tools and mould, in excellent condition, \$45. Fred L. Churchill, Stamford, N. Y. 12-29

WINCHESTER S. S. rifle .25-20 round 28-inch barrel, Lyman sights, excellent condition, stock oil finish, \$18. Norman Read, Belfast, Me. 12-29

10-GAUGE REPEATING SHOTGUN, long-range Winchester, 10-gauge duck and goose gun, has new full-choke barrel besides extra barrel, new condition, finely blued, and with sponge-rubber recoil pad, complete, \$60. Dr. E. H. Cunningham, 101 Baylor St., San Antonio, Tex. 12-29

USED STEVENS, Winchester, and Lyman telescopes; Winchester target rifles, with set triggers, .22 and .32-40, also Ballard Schuetzen rifles. Jim Craton's, Davenport, Iowa. 12-29

POPE PALM REST, \$4; two barrels for Winchester S. S., .22 short for musket, pitted, \$4; .32-40 No. 4, pitted, \$4; Winchester 40-65 tool and mould, \$3; Winchester S. S. rifle, .22 W. C. F., round nickel steel, scope blocks, perfect, ideal tool, mould, and shells. V. R. Olmstead, 429 Warburton Ave., Yonkers, N. Y. 12-29

B. & M. TOOL, .30-06, .38 special and .45 auto, powder measure, scale, Write for particulars. Ralph Haines, 1509 Triplett Blvd., Akron, Ohio. 12-29

IMPORTED Circassian-Walnut Gun Stock Blanks, \$2.75; horn fore-end tips, \$2; horn butt plates, \$1.25; horn pistol-grip caps, \$1. Send stamp for complete list. Chester Nikodym, 5703 Broadway, Cleveland, Ohio. 12-29

BISLEY .38-40, 7 1/4-inch, gold bead, perfect, \$50; Bisley target, 7 1/4-inch barrel, and cylinder, .32-44, \$8; Bisley .38-40, 7 1/4-inch barrel, \$3; Bisley 44-40, 4 1/4-inch barrel, \$3; Bisley, plain walnut stock, \$2; S. A. .44 Special, 5 1/2-inch barrel, \$3. All fine condition. H. N. Snively, Box 2446, Denver, Colo. 12-29

SPLENDID Service Krag rifle with clean bore, good action, and very accurate, price \$3. Rev. D. E. Day, Mount Ida, Alexandria, Va. 12-29

.32-20 SAVAGE Sporter, factory condition, Lyman sight front and rear, \$15. Wm. J. King, Pennell St., Skowhegan, Me. 12-29

SILVER-MOUNTED percussion rifles; list 10 cents. J. Henry, Mason, Ill. 12-29

BEAUTIFUL Vernon guitar, \$30, value, \$22.50; V. H. grade Parker, 20, \$45; 10-gauge M1 gun, good, \$7.50; Fiala sleeping bag, \$18; large Fiala pack basket with cover, cost \$15, new, sell \$10. Philip Plaistrige, Winchester, N. H. 12-29

WINCHESTER 52, improved model, perfect, only slight signs of use; B. & M. rod. Best offer. Roy Murphy, Woodburn, Ind. 12-29

COUGHS AND COLDS—Use Dutton's Salve, for coughs, colds, cuts, burns, boils, bruises, insect bites, rashes, pimples, etc.; 50 cents per box; 12 boxes \$5 post paid. W. H. Dutton, Box 1203, Little Rock, Ark. 12-29

BUTTLUG walnut gunstock blanks, \$1 up; any thickness. Stamp brings descriptive price list. John Parkhill, 624 Fourth St., Rochester, Minn. 12-29

BARREL, 5 1/4-inch, .32-20 cylinder, 56 cartridges, 3-inch cartridge belt, No. 4 Ideal tools, 1,000 No. 1 primers, \$11.50; .44-40 Winchester tools, 120 clean shells, one box factory cartridges, 500 primers, \$5. Will trade outfit on good .45 S. A. E. H. King, Dayton, Pa. 12-29

NEW 38 OFFICERS' MODEL COLT, Camp Perry, \$30 each; Winchester 5A scope, \$20. Bill Clark, 415 11th St., DeWitt, Iowa. 12-29

6X MALCOLM TARGET SCOPE, new with mounts, \$15. P. P. Richmond, Charleston, W. Va. 12-29

DE LUXE SPRINGFIELD SPORTER, 22-inch, light-weight barrel, super-accurate, Howe-Whelen bolt-sleeve rear sight, wonderful engraving, selected tiger-flame Circassian-walnut stock, \$150. For further particulars address Eric Johnson, 744 Winchester Ave., New Haven, Conn. 12-29

BRAND-NEW 22 Stevens Repeater with 15-inch barrel, ideal for auto use, tang peep, ivory front sights, wonderful little outfit, only \$15. 2884 Ash St., Denver, Colo. 12-29

NEW ANSON-DELEY, 16-gauge, hammerless shotgun, Krupp smokeless-proof steel barrel with auto. ejector, full-modified choke, pistol grip, cheek piece, horn guard, sling swivels, English engraving, \$125. Also new Sauer vest-pocket pistol, caliber .25, with 25 cartridges, extra magazine, \$15. George Kuchenreuter, 1419 N. Lawrence, Philadelphia, Pa. 12-29

FINE COLLECTION of rifles and pistols, complete list furnished on request. Inquire, Mrs. Roswell Fenton, Frewsburg, Chautauqua County, N. Y. 12-29

KRAG-NIEDNER Carbine, groove diameter .308, Lyman receiver sight, commercial and D. O. M. ammunition throats up well, remodeled stock, pistol grip with cap, oil-finished and finely checkered grip and fore arm, has successfully competed in matches against best Springfields; some other fine rifles. Dr. J. A. Carter, Ottawa, Ill. 12-29

MILLER Checking Tools with three bits cutting fine, medium, and coarse checks, \$3.50. Chester Nikodym, 5703 Broadway, Cleveland, Ohio. 12-29

SPENCER LOADING TOOL, described in December 15, 1926, AMERICAN RIFLEMAN, beautifully made, accurate and rugged, .30-06-caliber, perfect condition, \$15. L. J. Hathaway, c/o THE AMERICAN RIFLEMAN. 12-29

TWO CASES, caliber .30, 1919 match, \$35 each. One case, 1920 match, \$45. J. D. Giunt, 824 E. University, Ann Arbor, Mich. 12-29

MARLIN 39, almost new, gold front, simplex rear, canvas case, \$20; Winchester .22 L. R. musket, excellent, Lyman 17 front, 37 rear, scope blocks, sling, \$20; Springfield, good condition, high comb, short fore end, Pacific micrometer rear sight, also King's sporting rear sling, \$30; Colt S. A. .38 special, 7 1/4-inch extra side stocks, King's triple-bead front, carved belt and holster, accurate, \$30; Winchester 5A scope, Knobie Springfield base, saddle-made leather protectors, oak-upholstered case, new condition, \$30. M. Neely, 506 1st Ave. W., Seattle, Wash. 12-29

COLT .45 Auto, latest, belt holster, Heiser shoulder holster, B. & M. tools, 780 jacketed bullets, \$33 cash. Henry Stebbins, 10 Buffalo, Oakland Sta., Pittsburgh, Pa. 12-29

SPRINGFIELD 1903, Service model, stock remodeled, cut to sporting length, Lyman 34 rear, Jostam pad, sling, bore perfect, excellent condition, \$28. Thomas Furman, 412 Crescent Ave., Greenville, S. C. 12-29

9 SHARPS RIFLES, 1 Henry, 2 1873 Winchester, 2 1886 Winchester, ammunition, .45 2 1/2-inch; .40, 2 1/2-inch, .40 necked, .44 flat, .50- and .56-caliber Spencer, 9-mm. pin-fire, many others; list 6 cents stamps. Wm. C. Almqvist, P. O. Box 162, Harlowton, Mont. 12-29

S. & W. .44 MILITARY, 6 1/4-inch barrel, very slightly holster worn at muzzle, otherwise in perfect condition inside and out, \$22.50. No trades. R. J. McFeater, 47 Park Ave., East Orange, N. J. 12-29

TWO IDEAL No. 3 reloading tools, .303 Savage, \$4.50 each. Chas. G. Bartlett, 3110 Main St., Buffalo, N. Y. 12-29

SPRINGFIELD 20-inch barrel with Zeiss scope by Griffin & Howe, used by me in Africa \$125; Browning automatic 16-bore, 26-inch modified, \$35; O. & U. Greifelt 20-bore and 25-20, \$40; Winchester 10-bore repeater, \$40; Parker 12-bore raised-rib, double-barreled duck gun with beaver-tail fore end, \$100. John H. Phipps, 630 Barrymore St., Philadelphia, N. J. 12-29

BRAND-NEW COLT POLICE POSITIVE, .38 Special, 6-inch, checkered-walnut monogram grips, \$22. Shirley Moore, 125 Freelon St., San Francisco, Calif. 12-29

SHARPS Old Reliable .40-caliber Buffalo gun, beautiful stock and all in perfect shooting order. Box 71, Milpitas, Calif. 12-29

WINCHESTER 52, stainless-steel barrel, new Lyman 17A hooded front sight, beautiful figured stock, absolutely new, cost \$52.50, sell \$38.50. George M. Spahr, Frankfort, Ind. 12-29

COLT Police Positive, 4-inch, .38-caliber, fine condition, \$22. H. F. Lewis, New Albany, Pa. 12-29

B. S. A. No. 12, NICKEL-STEEL BARREL, \$40; Winchester 52 Standard, \$45; Winchester 52 heavy nickel-steel barrel, \$90. Above guns are in crank condition, beautifully restocked, with Int. butt plates, semi-beaver-tail forearm, cheek pieces and full pistol grips, actions smooth and crisp. Priced for quick sale. WANT—Ballard engraved double set action. S. J. Lanning, 2015 W. Horn, Sioux City, Iowa. 12-29

COLT .45 automatic, good condition inside and out, Audley spring holster, 3 clips 200 cartridges, \$23. J. Embler, Blairstown, N. J. 12-29

"AMERICAN PISTOL-SHOOTING," by Frazer, new, \$3.75; .30-06 cases, fired once, in clips, 75 cents 100 post paid. Ronald Tripp, Leesville, Ohio. 12-29

NEW perfect 35X spotting scope, extends 21 inches, objective 1 1/4 inches, by Meyrowitz, Paris. E. D. Neff, S. Orange Grove, Pasadena, Calif. 12-29

12-GAUGE LOADING SETS, new, \$2. Fine curly-walnut stock blanks. Stock making, remodeling; good work; prices reasonable. W. M. Stuart, Jr., Washington, Va. 12-29

.69 WHITNEY NAVY MODEL PERCUSSION MUSKET, new, \$20; .58 Colt S. S. percussion musket, new, \$12; percussion revolvers, .44 Remington, \$14; .44 Colt, \$8; .36 Whitney, \$8; .54 Aston, S. S. Army percussion pistol \$11; .50 Remington Navy S. S. pistol, \$18. Spare cylinders—.36 Remington, \$2.50; .44 Remington, \$2; .45 Colt S. A., \$2. Moulds—.31- or .36-caliber, 2-ball, \$1.75; .36- or .44-caliber, 6-ball, \$5; .30-caliber, 5-ball (round), \$2.75; .45-70, 4-ball (round), \$5.50; .45-70-405, \$1.35; .45-70 cylindrical, \$1.75; .40-70 cylindrical, \$2.25. P. A. decapping-priming tools—.45-caliber, .30 Krag, .30-06, \$1.75 each. Reizing dies—.50-70, \$2; .45-70, \$1.35; .45 Colt (revolver), \$1.25; .30-caliber neck-resizing, 75 cents. Army Manuals describing .45-70 and .45 Colt S. A., \$1; Colt Dragon nipple wrenches, \$1; .38 Web cartridge belt, \$1.50; book, "Simson North, First Pistol-maker," \$6; C. & B. nipples, wrenches, spare parts. Transportation extra. B. K. Wingate, Box 421, Reading, Pa. 12-29

STARR .44 percussion revolver \$7; Colt .44 percussion Army, new condition, \$28; .38 S. & W., 1881 model, \$14; Sawyer's "Firearms in American History," \$5; "U. S. Cartridge Collection Firearms now in Washington Museum," \$4.50; .38 Colt pocket model alteration, \$12; .44 S. & W. Russian target model, \$35; .32 R. F. S. & W., \$7.50; pair .45 flint pocket pistols, \$16; 22 Ross target rifle, \$14; 1895 Winchester .38-72, \$24. J. C. Harvey, 660 Beacon St., Boston, Mass. 12-29

1847 HALL'S CARBINE, new condition, \$12; 1840 Jenks carbine, new, \$12; 1863 Ball repeating carbine, new, \$14; Harpers Ferry 1824 flintlock musket, good, \$12; .44-caliber Colt cap-and-ball revolver, fine, \$7; 1847 Springfield percussion musket, fine, \$7. C. G. Greer, 1604 Franklin Ave., Nashville, Tenn. 12-29

CLOSE OUT IN ALL SIZES OF CARTRIDGES, SEE PAGE 44.

.250-3,000 SAVAGE 99A, \$22.50, good; Officers' Model Colt, \$25, fine; Colt Woodsman automatic, \$22.50, new. Dr. Kent, Box 103, Tucson, Ariz. 12-29

SPRINGFIELD Service rifle, good, \$19.60; Remington 17A, 20-gauge, fine, \$30; Ross .303, fair, \$3 Lyman, \$8.50; Krag 30-inch barrel, fine, \$4.50; Ideal 30, 1906, No. 10 tool, new, \$7; Belding & Mull No. 98 tool, complete for Krag-Springfield, \$10. H. N. Bundy, R. F. D. No. 7, Topeka, Kans. 12-29

B. S. A. .22-CALIBER No. 12 target rifle; B. S. A. No. 8 rear with 6-hole rotating eyepiece, Lyman 17 front leather sling, canvas cover, gun-crank condition, bargain, \$30; Winchester 52, late model, almost new, fired 200 rounds, Lyman 48T with B. S. A. dead-center 6-hole rotating eyepiece, extra Whelen sling, canvas cover, Lyman No. 5 front and No. 17A, \$40. Wm. F. Douglas, 7101 Colonial Rd., Brooklyn, N. Y. 12-29

#### SELL OR TRADE

.25-20 SAVAGE for 16- or 20-gauge pump, in good condition; or .22 target revolver. J. J. Donohue, Wakonda, S. Dak. 12-29

NEW Krag CARBINE stocks and good barrels with receivers attached, all Government-made. N. J. Harman, Mount Joy, Pa. 12-29

POINTER, eight months old, registered stock, for pump shotgun; or what have you? Frank Warren, Brunswick, Me. 12-29

COLT PERCUSSION REVOLVERS. Kentucky flintlock, \$20; Winchester S. S. 40-70 shells, tools, \$13; Stevens-Conlin .32, fine, \$20; Winchester .47, fair, \$7; Maynard 40-60, good, \$3. C. H. Howell, N. M. M. I., Roswell, N. Mex. 12-29

REMINGTON .44 C. & B. blued, excellent shape, \$12. WANT—Stevens offhand 8-inch. H. Hawelka, Lincoln Pl. Police, Chicago, Ill. 12-29

1892 MARLIN .22 L. R. new barrel. WANT—Remington, Model 24S, or Savage .32 auto. Paul McFarland, McLean, Ill. 12-29

EASTMAN Kodak No. 1, Series II, cost \$24.50, new condition. WANT—Colt Woodsman or good .22. A. J. McClelland, 1616 Berkeley Way, Sacramento, Calif. 12-29

SCHOFIELD S. & W., perfect inside, trade for .32-20 Bisley. Few rare S. & W. revolvers. List and description for stamp. Warren Baker, Perry Co., Markelsville, Pa. 12-29

COLT ARMY, Special .38, 6-inch, crank condition and holster, \$22, or good Springfield. Carll, 2033 Grand, St. Paul, Minn. 12-29

MAUSER 8-mm. 20-inch barrel with beautiful full-length walnut stock oil-finished, with sling, equipped with Belding & Mull hunter scope, only used a few times, price, \$85. WANT—Rifle for long-range shooting equipped with higher power scope. Prefer Springfield, Remington, or Winchester. F. L. Bartlett, Kane, Pa. 12-29

RADIO SET, .25-20 Marlin, .32-20 Savage, Model 39 Marlin. WANT—Guns. Elmer Eaton, Olney, Tex. 12-29

PATENT quick-acting monkey wrench, meritorious invention. J. Henry, Mason, Ill. 12-29



STEVENS 12-gauge repeater, used, fine. Colt S. A. 38-40, fine. WANT—Good .22 rifle. Frank Brown, Faxon, Okla. 12-29

LATEST .39 MARLIN, factory new, peep. WANT—25-35 Savage, featherweight, perfect inside. E. Kempkey, 1218 Hobart Bldg., San Francisco, Calif. 12-29

TWO FINE, remodeled D. C. M. .30 stocks, recoil pads, grip caps, sling swivels, barrel bands, horn tips, ivory inlays, nice checking, \$25 each and your old D. C. M. stock as issued. 400 rounds .30 Luger; trade for .30-06 or .30-40 cartridges. Two fine, dark-mottled cherry Krag Sporter stocks, snobbish forearm tip, fine checking, \$27 and \$30 complete; Camp Perry with reshaped frame and fine thumb-rest grips, fine condition, \$35; 8-mm. Sporter, 24-inch barrel with ramp and swivels, 6½ pounds cheek-piece Sporter stock, fine, \$25; Fecker, 6-power ¾-inch objective, 20-inch, new Fecker mounts, scope new, unused, \$35; Winchester .22 S. S., prewar, 7 pounds, finest walnut and workmanship, new condition, \$30. WANT—30 Springfield reasonable; Schmidt loading tool, .30-06, case war time, .30-06, No. 80 powder, other components; Arms and the Man previous 1921. Fine stocking and remodeling done at reasonable prices by Alvin Linden, Bryant, Wis. 12-29

FIVE ACRES California land near Victorville for Quad motor, guns; make offer. Earl J. Wolfe, 5030 W. Pico, Los Angeles, Calif. 12-29

WINCHESTER Model 54, .30-06 caliber, excellent condition. WANT—Spotting scope same condition. Russell Hopper, c/o Clerk's box, Hammond, Ind. 12-29

9-mm. LUGER, 4-inch, perfect, \$20; or trade for 6 x 30 Baush & Lomb binoculars. John Fuller, 413 Marguerite Ave., Cuyahoga Falls, Ohio. 12-29

GERMAN MACHINE GUN, \$75; Sporting Mauser rifle, 8-mm., \$20; Colt .44-40, New Service, 7½-inch, \$25; Star 9-inch screw-cutting lathe, \$200; Black & Decker electric drill, ½-inch, \$75. WANT—52 Winchester N. M. hammerless, 12-gauge and 28-gauge double-barrel; Camp Perry S. & W. perfected, .22. Geo. DeVault, Mt. Pleasant, Pa. 12-29

35-CALIBER REMINGTON AUTOMATIC model 8A, regular, \$53.10. Inside perfect, outside good, \$35; or trade for Winchester 52 in like condition. Frank Carrier, Norfolk, Nebr. 12-29

SAVAGE 19, like new, Winchester carbine, .30-30, good; fifty-dollar Kodak. WANT—22 Colt or S. & W. Remington 24, heavy .38 Special. Otelo Ottman, Greenville, Ohio. 12-29

32-20 ARMY SPECIAL, 6-inch fine, \$20; or trade for other Colt. WANT—38 Sporting tools, also low priced S. A. Colt, any condition. Geo. Wicker, 80 N. Fremont Ave., Bellevue, Pa. 12-29

#### TRADE

"INTERNATIONAL CORRESPONDENCE SCHOOL MECHANICAL DRAWING COURSE" for .30-06 Springfield. Thos. G. Mills, 2524 N. Central Park, Chicago, Ill. 12-29

COMPLETE National Salesman's Training Association Course. Cost \$100, take \$25 or guns. J. T. Jackson, 12 Nassau Ave., Schenectady, N. Y. 12-29

RIFLE TELESCOPE, any power, with mounting, new, for Colt .38 Officers' target model, 4½-inch barrel, or S. & W. .38 Military and Police Target Revolver; must be new or A1 condition. F. Decker, 814 George St., Chicago, Ill. 12-29

GOOD ALLOWANCE for firearms in exchange for any make camera, binoculars or telescopes. Eastman & Bell & Howell M. P. cameras. National Camera Exchange, 5 S. 5th St., Minneapolis, Minn. 1-30

S. & W. RUSSIAN 38-40, round butt, crank condition, for prewar .30 Luger, same condition. W. A. Trick, 680 W. Main, New Britain, Conn. 12-29

5A SCOPE AND MOUNTS; .45 Colt New Service; .256 Newton barrel to fit Springfield action, prewar; all perfect condition inside, outside shows wear; Mexican Mauser taken from bandit, action good; Philippine Negrito bow and arrows; beautiful hand-embroidered Chinese shawl, value \$300. WANT—Sporting Springfield or Mauser Mauser 300 or .375 by good maker; 280 Ross; latest 22 Springfield; S. & W. 22-32; Super .38 Colt; good hunting scope; Fairbanks type powder scales. J. J. Atkinson, 221 Post Ave., San Antonio, Tex. 12-29

21-JEWEL Burlington watch, 16 size, for Winchester 52. H. Fialde, Buxton, N. Dak. 12-29

M1 SPRINGFIELD .22, palm rest Winchester scope, perfect for hunting scope, prefer Zeiss Zeilklein. J. A. Shaw, Dwyer, Wyo. 12-29

REMINGTON Express, .25-caliber, restocked to correct dimensions, Lyman 48 rear, bead front, hand-smoothed action and trigger, superbly accurate. WANT—Model 20 Savage .250; Model 53 Winchester 25-20. Make offer. Box 1324, Fort Lauderdale, Fla. 12-29

S. & W. SPECIAL Military fixed sights. WANT—Colt .38 Special Army, 6-inch barrel, crank shape, account fits my hand better. E. W. Brewer, Dulce, N. Mex. 12-29

.22-CALIBER REISING AUTOMATIC in new condition, for Colt .38 Super in same condition. Paul McIntire, 2416 Whitney, Houston, Tex. 12-29

.45 COLT, 5¼, blue, new; .45 Colt, 7¼-inch, gold-plated, carved-pearl handles, shows slight holster wear, Mexican hand-carved holster; .38 S. & W. 5¼-inch nickel, pearl handles, perfect. WANT—44 S. & W. Russian target, .445 S. & W. triple lock, prewar. Byron Gardner, Salyersville, Ky. 12-29

WINCHESTER 52, barrel perfect inside, outside good, for Springfield '03 Service rifle. Stanley P. Gardner, 524 Erie Ave., Reno, Pa. 12-29

#### WANTED

WANT—Foreign Military rifles of the World War. What have you? State condition. James Schroeder, Y. M. C. A., Appleton, Wis. 12-29

WANT—Bullet mould for .45 Colt revolver and for Ideal bullet No. 457130 in perfect condition. Wesley Deming, Chaplin, Conn. 12-29

WILL give \$20 each for .38 Official Police, Fecker, and 5A, including mounts; perfect. WANT also Winchester 57 or 56. TRADE—Fine S. & W. 1917 holster, on Official Police or Woodsman. George Courtney, 194 Piper, Detroit, Mich. 12-29

WANT—Miniature single-action Colt revolver, .38 long. State price and condition. Box 215, Morganton, N. C. 12-29

WANT—Bargain, A1 Army .45 or Bisley; S. & W. .44 target or '17. Describe. McIlravia, Alexandria, Minn. 12-29

WANT—45 3¼-inch Sharps and shells, lever for 31, 1849 Colt, 5-inch. Information about Tegenberger, Chicago gunmaker. Hansen, 2035 Harrison, Evanston, Ill. 12-29

WANT—WINCHESTER rifle, Model 1876, caliber .45-75, good condition. State price. James Rolston, 1029½ N. Market, Mount Carmel, Ill. 12-29

WANT—Lyman 48G receiver sight for Savage Model 19; N. E. A.; no scrap. C. E. Clapper, Mount Hope, W. Va. 12-29

WANT—Howe-Whelen sight. M. J. Dornier, 15 Florence Ave., Binghamton, N. Y. 12-29

WANT—Marlin 1892 .22 lever action; condition of barrel immaterial. Thos. E. McCall, Box 1171, Phoenix, Ariz. 12-29

WANT—Metal-ring grip ("knucks"), screws on Ivers-Johnson .38; also want hammerless. Write first. Lewis B. Richardson, Trafalgar, Ind. 12-29

WANT—Remington double Derringer, good condition. TRADE—Remington 4.22, good condition. Write terms. John Nunes, 223 E. Street, Porterville, Calif. 12-29

WANT—Krag, Russian, .30-06 cartridges, .32-20 pistol, .32-20 shell-rezier, noncorrosive primers. Chas. H. Miller, Ransom, Kans. 12-29

WANT—Luger drum magazine. Robert Garrison, 121 N. Bishop Ave., Dallas, Tex. 12-29

WANT—Reising .22 automatic, perfect condition. Verne Scott, Powersville, Mo. 12-29

WANTED—Colt or equivalent American cap-and-ball, muzzle-loading revolvers stamped as made by Samuel Colt Patent Firearms Mfg. Co., Paterson, N. J. or by other American makers. If you have any, write giving full descriptions, markings, condition of finish, and price. Will pay cash or trade for other antique arms, if preferred. McMurdo Silver, 6401 West 65th St., Chicago, Ill. 4-30

WANT—.38 and .45 Colt automatic pistols, .30-06, .45 Krag and Russian cartridges. SELL—.54 Winchester .30-06, perfect, .300 Savage, Model 1920, perfect. D. O. Amstutz, Ransom, Kans. 12-29

#### MISCELLANEOUS

REBLUING, restocking, remodeling; all kinds work guaranteed; prices reasonable; Krags, Russians, Mausers a specialty. Henry Dale, R. F. D. No. 3, Owosso, Mich. 12-29

KEEP FIT. Try camping. Five-acre river-front camp site, Ozarks, timbered, hunting, fishing, boating, bathing, \$100; \$5 monthly. Harry Hubbard, 1973 North Fifth, Kansas City, Kans. 12-29

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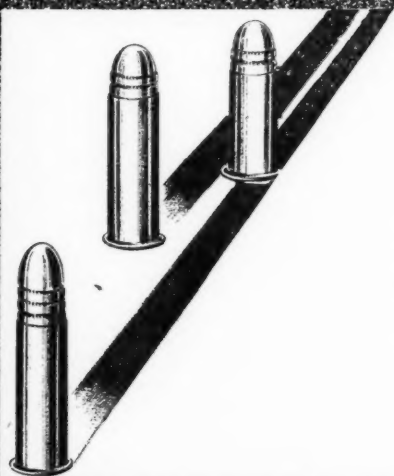


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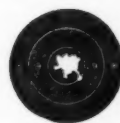
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Photograph No. 1 shows the actual weighing operation of each charge of powder for a series of a 20-round test. The powder is weighed on an analytical balance which is accurate to a hundredth of a grain.

Photograph No. 2 illustrates the care with which the wads are first loaded in the shells so that they will be parallel to the base of the shell.

Photograph No. 3 shows how each shell is measured for a uniform length of crimp.

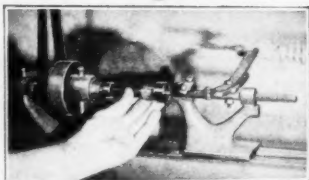
Photograph No. 4 illustrates how the crimp is finally applied. Note that the



2



3



4

machine is semi-automatic in operation—the loaded shell being forced against the revolving crimping head by a constant weight applied through a system of levers.

The ammunition is now ready to be tested.

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